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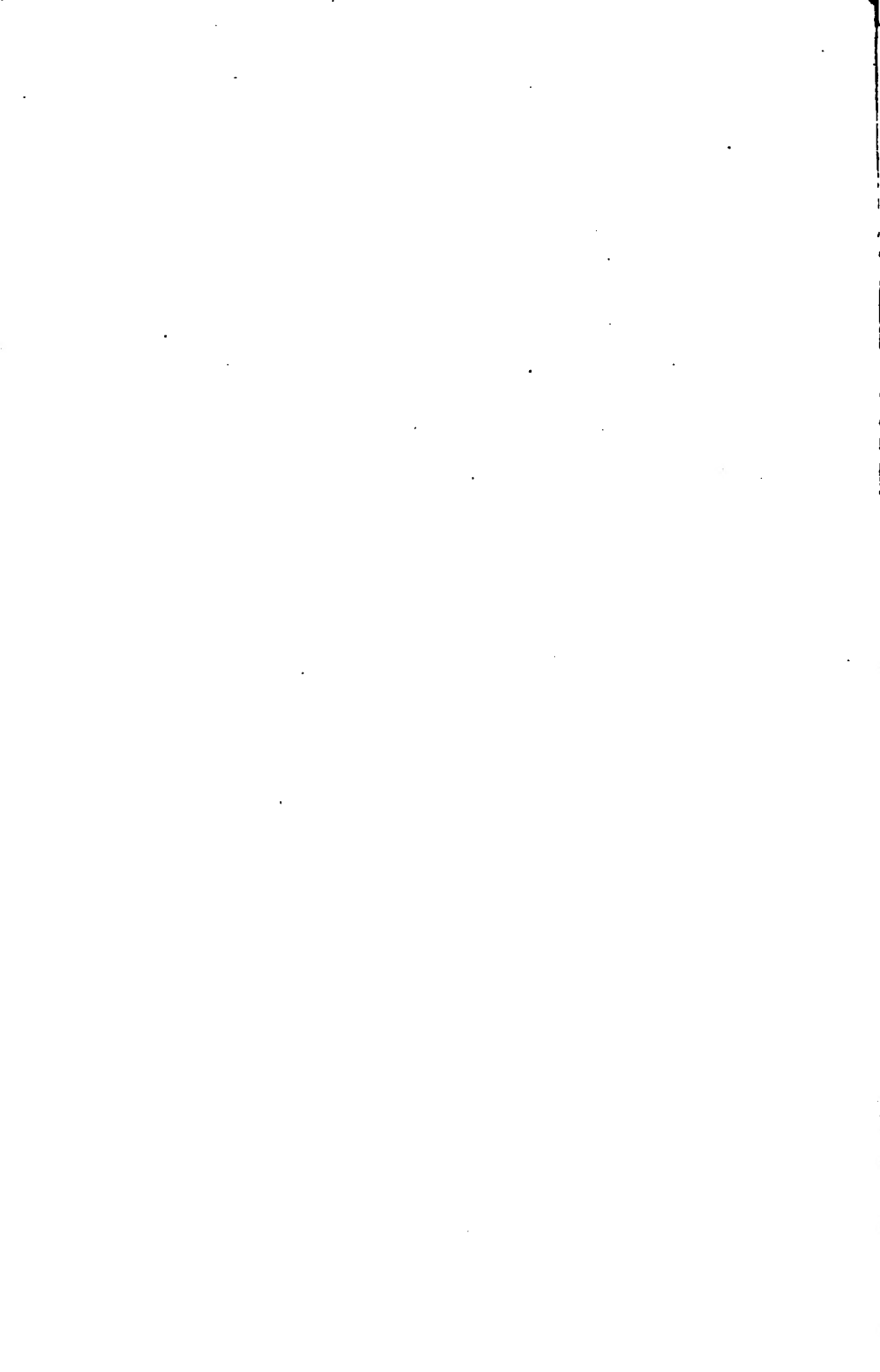
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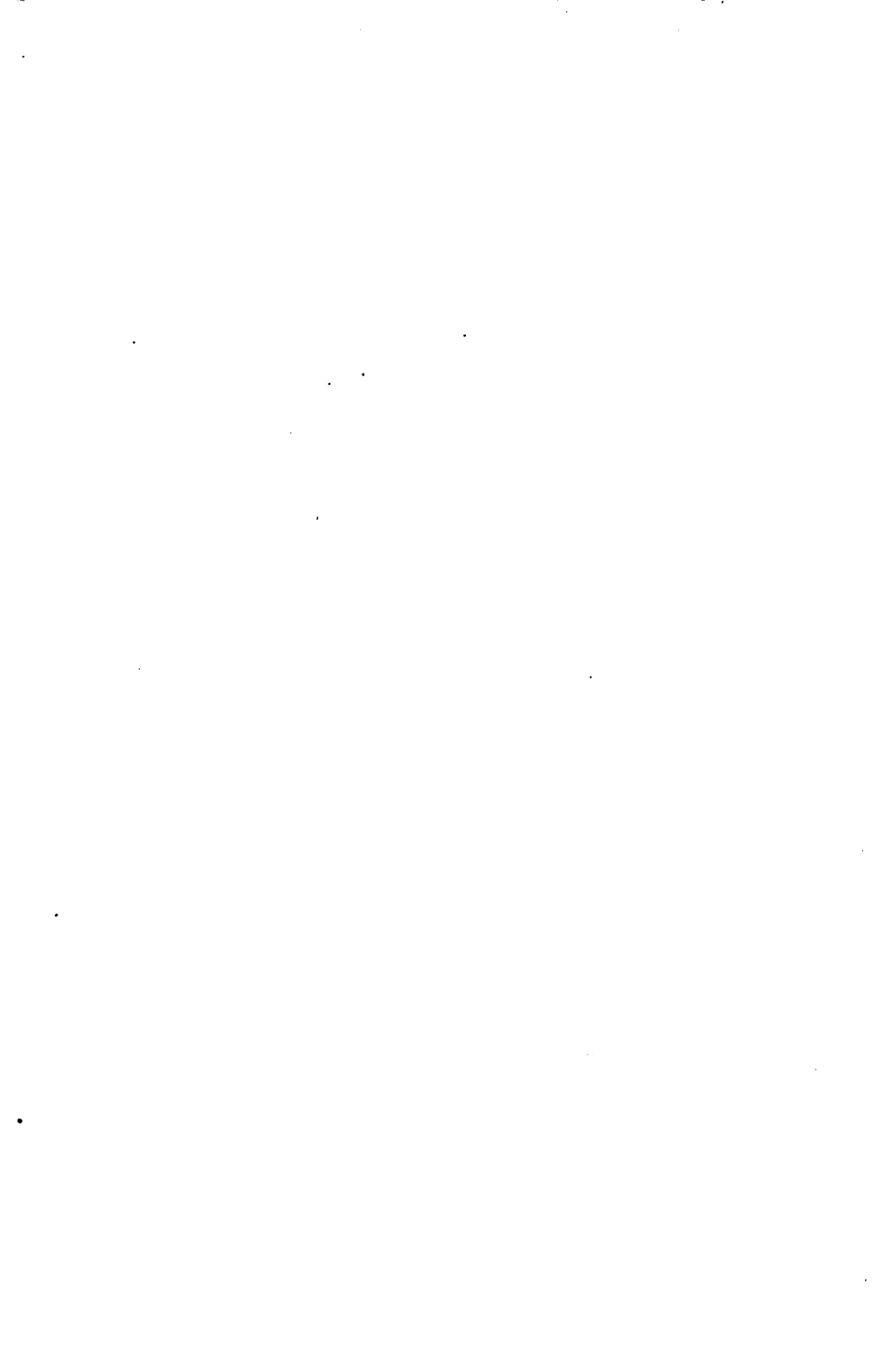
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E. B. Swatts
1898

RAILWAY MANAGEMENT

AT

STATIONS.

BY

E. B. IVATTS,

LATE GOODS MANAGER, MIDLAND GREAT WESTERN RAILWAY,

Author of "Carriers' Law, relating to Goods and Passenger Traffic."

*(Formerly of Great Indian Peninsular—L. & N. W.—West Mid.—Buffalo and Lake H.—
and L. & Y. Railways.)*

(THIRD EDITION.)

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DEDICATED
TO
WILLIAM CAWKWELL, Esq.,
VICE-CHAIRMAN
(LATE GENERAL MANAGER)
OF THE
LONDON AND NORTH WESTERN RAILWAY,
IN GRATEFUL REMEMBRANCE
OF HIS
HAVING NOMINATED THE AUTHOR, WHEN A YOUTH,
TO THE
RAILWAY SERVICE.

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PREFACE TO THIRD EDITION.

IN issuing this third edition I have to thank my readers of the first and second editions for their kind expressions of approval. It is gratifying to know that one's efforts, designed to smooth away difficulties and lighten labour, have been of service to some who have been eager for information. The Rules, Regulations, and Instructions issued by the various English Railway Companies to their Staffs rarely exceed restrictions as to what Station Agents and Clerks are to do, and what they are not to do. But the *modus operandi* or practical "how to do it" is a minimum quantity even in what are called Instructions. It is hardly possible for it to be otherwise. The rules for working a Railway may be likened to miniature Acts of Parliament, and could not advisedly be clogged with technical educational formula; besides, men are *supposed* to be experienced, and where not experienced are expected to pick up the routine work from their fellow-workers.

In my opinion the blot on our Railway organisation, particularly in relation to the inside Staff, has always been the absence of Railway Technical Examinations, quite independent of, though recognised by, the various Companies, and yet optional on the part of the Staff. It is true since my pamphlet appeared some years ago, and was republished in the second edition, and is contained herein, being a "Proposal for a Railway Commission for Technical Examinations," the Great Western Railway Company have adopted a system of Progressive and

Periodical Examinations for their Junior Clerks. Whether my pamphlet inspired their action or that it was a coincidence has never been unfolded to me.

The difficulty in introducing Technical Examinations rests mainly with the Directors of the various Companies. From their standpoint "Patronage is a Perquisite of Office." True there are with all Companies some form of preliminary examination required as to general education before a young man is appointed. This, however, cannot at the time of appointment be Technical, because the young man is untrained in the work. Some Directors follow up their nominees year by year and get them advanced, and this would be kept within certain limits. If restrictions were set up as to advancement being preceded by Technical Examinations, either previously passed with the object of qualifying for coming vacancies, or before advancement thereto, it would be extremely difficult for a man to grind up "parrot-like" a pass for a Technical Examination in the absence of practical experience. Certainly men might pass who from various reasons it might be undesirable to advance to important posts. A man's individuality for good or bad must count ; but restrict the individuality, however aspiring, when without proved practical experience.

I believe most Managers would heartily welcome some form of "guinea stamp" or quality "brand" being affixed to aspiring men, as it would greatly free their hands. A Manager of a large Railway cannot possibly know the merits or demerits of every individual on his Staff, hence he has to greatly depend upon reports from District Managers, Superintendents, Inspectors, and others, and these often "boom" one subordinate and "crush" another, perhaps conscientiously, perhaps otherwise. A private report or a few quietly spoken

words and the deed is done. The examinations and the "brand" would tend to break down any inequality of treatment and selection where it might otherwise arise.

Anyone acquainted with the inner working of Railways knows there are many efficient and trustworthy men working on the inside Staff as "hewers of wood and drawers of water" for ten, fifteen, and twenty years, and from the absence of a "friend at court" cannot get advancement beyond an occasional £10 a year increase at long intervals. The official reply to this is, "Oh, these men have shown no special qualities drawing attention to them for advancement."

It is proverbial throughout the Service that bumptious men with "tact," who are specially civil to their immediate superiors, get on, and that often their lesser ability and experience counts very much more for advancement than it should do. If, however, the bumptious men can by examination qualify, let them go forward by all means; but give the plodding man, though perhaps he may be a little deficient in "tact," a chance to prove his experience by Technical Examination to help him out of the mechanical rut. True all cannot rise to leading positions, which are few enough; but give the most deserving of the rank and file a fair open field by "pass" merit to work up to departmental rank as non-commissioned officers.

The present system does not help to produce General Managers, though so few are required. It is well known in the upper grades of the Service there is great difficulty in selecting men as General Managers for even moderate-sized Railways. Hence General Managers' salaries have gone up. One Company tries to tempt away the leading Officers of another Company, and the first Company often advance their salaries to keep them.

Considering the present out-look and the growing organisations of the outdoor men employed on Railways, who are ever seeking less work and more pay, I am of opinion the true policy of the various Companies is to make a move in advance and tighten the bonds with the inside Staff in keeping them loyal and true. Nothing, in my opinion, would help to do this more than Technical Examinations, so as to offer every man a fair open field to qualify for advancement. If he has not the ability, or cannot prove his ability by Technical Examination, or is indifferent, then he has no true ground afterwards to become a grumbler.

It is gratifying to me to know that the previous editions of this work have extensively circulated abroad, especially in India, Australia, Argentina, South America, Canada, and United States. It has been accepted abroad as an Exposition of the English System, and copies have been sold for Germany, Russia, France, Spain, Italy, Brazil, and many other countries, and particularly where English capital or Englishmen are engaged as Managers and Engineers of Foreign Railways.

EDMUND B. IVATTS.

April, 1898.

P R E F A C E.



THE backbone of the Railway system is the "Station Work;" and the principal object with which this book, the first comprehensive treatise of the kind, has been written is to increase the efficiency of the Station Staff. This efficiency may be easily advanced in the future if broader and more systematic teaching is adopted, and if *permissive* technical examinations, as explained in the chapter on Training, are inaugurated.

The writer's design has been to afford instruction in relation to Railway business that will be supplementary to the "rules and regulations" each Company furnishes to its Staff. He hopes the teaching found herein will prove useful to young beginners, and to those whose knowledge of the business is limited to the work of only one or two departments, while at the same time he believes the volume will prove useful to the Railway Service generally as a book of reference.

While explaining what he considers the best plans for getting the work done, the writer has endeavoured to avoid suggestions likely to contravene any of the rules of the different Companies. Should, however, the reader in any case discover herein any recommendation at variance with a rule of his particular Company, he should most certainly follow such rule in preference to the suggestion in the following pages.

The question of Signal Working in connection with stations,

junctions, and trains has not been touched upon here, except incidentally. The modern interlocking of points and signals, and the advent of electrical block signals, would render necessary a very extended treatise, supplemented by diagrams, to do justice to the present enlarged system of signal working on Railways. The production of such a treatise would necessarily be fraught with difficulties, from the variations incidental to the practice of the different Companies, and the constant growth of improvements.

The author regrets not being able to furnish his readers with some of the English Clearing House rules, interspersed through the several sections of the station work to which they relate. Had the permission to cite them been accorded, many of the rules would have been given in full, and their usefulness thereby extended, although the printing cost of this work would necessarily have been increased.

E. B. IVATTS.

April, 1885.

INTRODUCTORY.

To manage a large goods or passenger railway station successfully, requires a combination of qualities not common to an every-day man. It is a popular delusion that any kind of man is fit for the railway service. Important railway appointments in the past have been partly filled by patronage and partly by the promotion of men from the lower grades of the service. It has been found that practical experience and persistent hard work have brought to the front many men of limited general education, but possessing a comprehensive knowledge of the business. It has been truly the survival of the fittest. Physical endurance of hard work and brain wear and tear has been exhibited in a great degree by the promoted subordinates. The picked men who have come to the front and managed the railways of the United Kingdom for the last thirty to forty years have mostly commenced as subordinate clerks, at often less than twenty shillings per week, and sometimes as office boys at a few shillings a week; and even permanent-way men, porters, and guards have attained leading positions as passenger superintendents and goods managers. The road is still open to men of ability, and what has been done in the past may still be done in the future by those who possess the requisite fitness. Patronage may give a man the first opening, but the necessities of the service are too urgent and vital to admit of a man being able to retain a leading position for any great length of time without possessing the necessary ability to fulfil the office. Brain power, like water, finds its level. Many men come to the front by "push" and a capacity to impress those in authority, while at the same time possessing but very moderate abilities. On the other hand many men wanting in "push," but yet possessing superior abilities, make little or no headway in the railway service. Still we advocate the maxim "work and wait." The time is probably not far distant when we shall have, for trained men, optional periodical examinations when a railway aspirant for honours may exhibit his qualifications by passing a professional examination. When that time comes promotion will then go from the muster-roll of men who have passed a certain examination and hold a particular class certificate. One of our objects in writing this book is to bring together material to form a text-book for technical study, both as an auxiliary to the practical worker and also as a treasury from which a series of examination papers may be compiled. Shortly after our

first induction to the office of station agent, now many years ago, we issued a circular to the then managers, advocating an outline plan for examinations, but it was crude and nothing at the time resulted from it. We have, however, never lost sight of the question, and we have great faith that something will be done in the time to come.

In carrying out any undertaking where there are many men to control, and each with a certain allotment of duties to perform, a chief amongst them is necessary to direct their labours to the attainment of the results contemplated. A man starts a business thinking that by attending to certain things in its working he can make it a success; perhaps by having better workmen than his neighbours and the production of a better article at an equal or less price; perhaps by stricter economy, greater civility, and going to a better or cheaper market for his material. The daily supervision of these matters and the details connected with them constitute the management. It is obvious, therefore, that the management of any business is the working of it to certain desired ends, but before attempting which, it is imperative that an agent should be conversant with all the details upon which the attainment of these ends depend. A man without a knowledge of the details of the business is like a ship under sail with no helmsman to steer to any given point, hence upon each change of the wind the vessel drifts in a different direction. Men unacquainted with the details of the business which they are pursuing, are quite as uncertain. They seldom succeed, and when they fail from inability to grasp the details, they cannot be cited as men of brains. The essence of station management is a perfect knowledge of all the details of the business, and this knowledge is only to be attained by continual practice at the work, which in the right class of mind produces a kind of cultivated instinct, an intuitive and momentary impulse as to what is the right thing to do under nearly every given circumstance. A good workman knows good work, because he is familiar with the details necessary to produce it, and the same principle applies to a good station agent. If for want of a knowledge of the details of the work an agent does not know good work from bad work, he cannot discriminate those among his staff who possess real merit from those who are only mediocre. How then, is he fit to rule or manage? A station agent should be thoroughly acquainted with the duties of each man he controls, so that he can at any time, in case of emergency, take up and fulfil such duties, assuming they refer to clerkage, quite as well, if not better than the person to whom they are apportioned. An experienced agent can generally do this and may well pride himself upon possessing such ability. Where a man has acquired this practical knowledge of the details he will excel as an agent. If matters go wrong he can immediately put his finger upon the person to blame, and can determine whether the fault has been caused by a careless error, a wilful error, or is attributable to a want of organisation. An agent with this experience does not run from one subordinate to another to learn from the judgment of others who is the person to blame. Therefore to successfully manage a station of any importance there must be a careful consideration of the "ends" sought to

be attained, and continual application to shape circumstances towards that realisation which the company's interest and credit demand. An agent, likewise, should strive to work in unison with all about him, so that he may gain their good-will, and, when necessary, their co-operation. This policy furthers the company's interest and facilitates the work.

Quick intuitive perception in an agent evinces quickness of understanding, which he will display physically as well as mentally, because the mind and the body react one upon the other. Quick perception is a natural gift, and a great boon in business to those who possess it. One agent will take up a letter and read it over twice before his dull intellect takes in the facts of the case; he then requires to think twice as to what he ought to do, or what is expected from him by the writer. Another agent will take up a letter and glance hurriedly over it, his mind's eye takes in the facts of the case instantly, and, as it were, he fits the facts into his frame, thereby grouping them in his mind with some precedent with which he has previously dealt. He then quickly indites or dictates a reply, issues an order and passes on to the next case. One man beats about the bush groping for the contingent facts or bearing points upon which to base a judgment, while the other man's intuitive perception grasps the case on the moment and hits the nail on the head at once.

A man of quick perception is a great observer—he sees and hears what oftentimes is neither intended for his eyes or his ears, and is too much a man of facts to be easily or often hoodwinked. Subordinates' excuses do not readily pass count with him—he wants work done and not a Canterbury tale, for he knows the difficulties and how they should be surmounted. He will be likely to say “don't bring me excuses but let me have the thing done; I want actions not words.” He sympathetically divines the likes and dislikes of others, their feelings and desires. He remembers facts and makes a good correspondent, writing in a pithy, curt style and to the point. The man of quick intuitive perception has brain quality in him, and is necessarily a man of tact. He has a most ingenious argumentative way of compromising difficulties and getting out of them with ease. He reads the characters of his subordinates and governs them accordingly. If he has an average knowledge of his business his subordinates do not easily deceive him, and he will inwardly laugh at their manoeuvres, while in a roundabout way putting them into a corner. He gains the reputation of being “cute,” and his men fear to attempt to deceive him, finding it the best plan to tell the whole truth at once. It is no use going to him with half a story or the facts of a case only half inquired into, because his intuitive perception divines probable causes from the circumstances thrown up. Therefore a clerk should be well made up as to the facts of a case, that he may be able to answer all possible queries in relation thereto.

Railway men as a class have to work harder and do more work in a limited time than the generality of other business men; therefore he who does the most in the least time, and does that most well, is the best man and the one most likely to get on. Quantity is

indispensable and quality is really secondary, provided it comes up to a fair mean. To perform a quantity of work an agent must cultivate quick perception and ready action on the moment to do the right thing, which qualities generally go hand in hand as gifts of nature. Still, by cultivation and practice, it is within the power of ordinary men to develop these qualities. It is surprising how industry stubbornly pursued compensates for ability, and often brings a man to the winning post before other men possessed of superior talent. When it dawns upon an agent's perception that something requires to be done he should not think *when* he will do it or say "it is something I must do," but as the American phrase goes, "take hold and do it right away," following on with what comes next. Avoid relapsing into inactivity, for, be assured, the less we do the less we want to do. Let an agent push onwards doing everything that needs completing and clearing off as he goes, and ever ready for the next thing that turns up. If he is without industry let him give up railway business and seek something quieter, for otherwise sooner or later it will give him up, perhaps minus a good character. Labour is one of the conditions of our existence, and it is only by it that those who are not capitalists can derive the comforts or pleasures of this life. "Labour is the price the gods have set upon all that is excellent."

There can be no doubt "procrastination is the thief of time," and that he who yields to it exhibits indecision of character. Every day brings its work at a station, and oftentimes more than can be done in ordinary business hours. If, therefore, an agent puts off anything until the morrow he will only overburden himself on the morrow, and the consequence will be that something else will suffer, and there will be another delay, and so procrastination grows. Complete a day's work in the day, and thus every day get through the work each day brings forth. *Clear and complete as you go*, should be the motto of an industrious agent, and then he will have nothing to look back upon unfinished. Some agents and clerks have a vicious practice of neglecting their correspondence, they procrastinate from day to day, until third, fourth, and fifth applications arrive, and at last they have a field day or two and clear off everything, neglecting, meanwhile, something else to give *their whole attention* for the time being to clearing arrears of work.

The bearing of an agent towards the public should always be courteous and obliging, such as one trader would show towards another trader. A railway official is not warranted in patronising the public who are the company's customers, and on the other hand the public are not warranted in writing abusive letters and using coarse language to railway officials, which unfortunately occurs too frequently. Whoever may throw the first stone should not complain if roughly dealt with afterwards. The public often expect too much but often get less than they are entitled to receive in the way of attention and civility. An agent should always remember that the company are simply large traders selling conveyance to those who want to buy it. The more sales that can be made the more money is netted. Buyers are acceptable, but the seller is under no more obligation to the buyer

than the buyer is to the seller, it being a question of barter between the two. If the sale and purchase is accomplished, it must be accepted that the purpose of both parties has been answered, although each party would no doubt have liked better terms if obtainable.

An agent should not let his energy flag owing to temper on the part of a superior officer. Trifles going wrong will at times occasion vexation to the best tempered men, and men are often sorry afterwards for having given way to temper although they may not choose to admit it.

An exchange of presents between two persons usually infers mutual friendship. They may vie with each other as to the value of their presents, but the character of an obligation is not imported into the matter, at least not in Britain. In India the custom in respect to presents is peculiar. There an inferior on special occasions approaches his superior in position with an offering, and it is expected and understood that the superior should return money or goods in value many times in excess of the offering brought by the inferior. This is equally the case with the native princes who acknowledge the suzerainty of the Empress of India and the poor native clerk who approaches the native cotton merchant, his master. Thus, when a suitor wants a favour he frequently approaches the person from whom he expects it with a present in value according to the suitor's means or the value to him of the expected favour. This to English ideas amounts to bribery, but the native Indian looks upon it as simply the ordinary and every day routine of his life, for sometimes he receives and sometimes he finds it expedient to give.

A railway agent may be subjected to offers of two kinds of presents—(1), complimentary gifts; (2), bribes. The first may be harmless and gratifying, but the second is demoralising and injurious to the credit and independence of the receiver. To define the limit where complimentary gifts end and bribes commence would be difficult. Persons with varying elasticity of conscience will draw the line differently. Our opinion is that the *object* of the gift, which will be well known to the giver and most likely imagined by the receiver, is the chief important consideration. Complimentary gifts of game, poultry or other comestibles, occasionally or at festive times, where no interested object of favours to come, can be conjectured, will not affect an agent's independence or loyalty to his employers. Much, however, depends upon who the giver may be and the object he may have in making the gift. One thing is, however, quite clear, that an agent should not, from receiving complimentary gifts, give any undue preference to one trader over another, nor do acts to the prejudice or loss of his company. Bribes in any form require little comment, they are acknowledged inducements on the part of the giver to obtain illicit advantages, and on the part of the receiver to do illegitimate acts for hush-money. Both persons are quite wide awake to their own backslidings, and knowingly pursue the evil course. Such persons are past reclamation, and in the interests of decent society deserve to be exposed and punished. The great thing an agent has to watch is that complimentary gifts do not assume a false guise and

prove in the end to be covert bribes. This he will quickly discover if a demand arises for something that means "value" to the giver.

"Tips" to subordinates are very troublesome and awkward things either to recognise or condemn. Good natured passengers and persons who desire special attention and waiting upon, will give the men gratuities, and where the men do more for such persons than is officially necessary they look for a "tip." One side is willing to give for extra attention and the other to accept and give the attention. The men become more attentive to a *certain* class of passengers, and, as a consequence, less attentive to those passengers who appear unlikely to give "tips." A poor woman, a third class passenger, with a baby on her left arm and one or two baskets or bundles on the other arm may groan under her load along the platform, while a young foppish muscular christian alighting from a first class carriage cannot be allowed by the porters to carry his light dressing bag across the platform to a cab. Now if any station agents or platform inspectors wink at the "intent" of the zeal in the one case the least they can do is by personal inspection to always see that the humbler class of passengers get proper attention, and particularly women and children. There can be no doubt but that this is an evil over the railway system and we think it might be lessened at many large stations, by selecting several porters to specially attend to third class passengers, as is now done here and there, and by marking on their uniform the words "Porter for third class passengers." This label would at any time excuse, to the first class passenger, the "third class porter" refusing him attention. The porter knowing he would be punished if he did not attend to his third class passengers would gradually settle down to that work and abstain from hovering round the quarry. If this system of separate porters for third class passengers was extended a little more at large stations and agents were to be more severe, the present evil might be greatly lessened. If the objection is raised that by limiting some porters' duties to third class passengers a fair day's work would not be obtained from them, it would not be difficult to have duplicate jackets for the "third class porters," so that the agent or inspector could for temporary purposes alter their distinctive character at different hours of the day and during variations of the traffic.

ORGANISATION AND TRAINING.

Definition of organisation—selection of men—classification of men—plan for training—periodical examination—placing of men—division of duties—inspection—circulation of control power—sustaining of organisation—expedients without organisation—duplication of plans—individual responsibility—apportioning work—rewards—upholding assistants having authority—time book—relays of men—invention to design plans—training—training is carried out best at small stations—order and system—teaching power—general order books.

THE organisation of a large body of men upon a railway involves—

1. The careful selection of clerks and men.
2. The primary and periodical examination of each individual clerk and man, and the formation of a true opinion as to the experience, qualifications, and natural ability of each—the placing of these men where their particular qualities will be developed, and their greatest energies displayed. This is really their classification, and it is one of the most important features of railway organisation. There are plenty of so-called classifications on paper in respect to grade, salary, and length of service, but, within our knowledge, there is no *periodical* revising classification as to progressive experience and efficiency. Men are examined on entering the service, and sometimes are questioned before promotion to a station agency, but from one year's end to another there is no special periodical estimate or stock-taking of the growth and progress of the experience and efficiency of the clerks and men. No periodically revised record is kept, and station agents are left to carry upon their memories their opinions of the experience and ability of clerks who may have served under them. Goods managers, superintendents, and travelling auditors likewise carry on their memories their opinions of the experience and efficiency of station agents who have come under their notice. If students in a college were not periodically examined as to their studies, how could their progress be estimated, and how could they be selected to go up into higher classes for more advanced learning? The same equally applies to the railway service.
3. The judicious placing of each man and the measuring his fitness for the duties to which he can be wisely put.
4. The wise division of the duties so that each worker has neither too little nor yet too much work to do.
5. That no man is apart and without supervision or inspection, and that such supervision is continuous and like a self-acting incline brake, inasmuch that increased pressure is incidental to any variation from the normal condition of right doing.
6. Such an arrangement of parts that the circulation of the control influence can quickly find a passage through all the ramifications

of the system and at once bring all hands to the condition of "attention" and strict obedience to rules and regulations.

7. An even performance of the work from hour to hour and from day to day and an entire absence of confusion.

Organisation is the application of arrangements designed to attain certain ends in an easy and most perfect manner. A systematic adaptation of checks in fixed order to gain required results. Arrangements that, if well applied, help to prevent errors, and when they occur bring them to light. But organisation, although of the greatest value when rightly applied, if laboriously applied is hurtful and creates unnecessary expense, besides giving rise to circumlocution and red-tapism. System and order are good in moderation and if an agent is deficient he should cultivate them, whereas if he is burdened with an excess he should check his propensity by viewing his actions in an economical light, considering whether by adopting new plans speed may be lost or expense increased. An agent should not needlessly multiply wheels, for a fifth wheel to a coach will only cause it to go slower. A light passenger engine is calculated to run along with a few carriages quicker than a heavy goods engine. The one moves along rapidly while the other is retarded by its own weight, for one is made to draw heavy weights while the other is made to run quickly with lighter weights. The working of organisation is much the same. It is better to have a system that will admit of reasonable speed and which runs freely rather than one that works heavily with slow precision. The size of the station must greatly control the particular plans to be used, because quite different plans are necessary for a large station to those preferable at a small station. At a small station some plans would be cumbersome and unwieldy that would be indispensable at a large station. Without organising ability, an agent will stand at great disadvantage in the railway service. The details of the business are so numerous and variable from changing circumstances, that new features are daily cropping up which require to be treated so as not to disarrange established plans, but rather work into and become part of the permanent system.

Organisation can only be kept up by carefully watching it and stopping anything that obtrudes to break it down. The thoughtlessness of men admits of decay creeping in, to dislocate established plans. Hence the necessity of checks, and that an agent should actively watch contingencies, which, by dealing with specially, may be warded off, and the system kept intact. It is this omission to meet these contingencies that causes the break down of organisation, and involves an agent in constant trouble and disorder. A change of circumstances will produce new elements in detail, and may necessitate a change in the organisation, and if this is not readily met a general disturbance of the work ensues. An inventive turn of mind is here of great help. It happens almost daily that something goes wrong, and then is the time to take action and provide some plan, scheme or system to prevent the recurrence of such errors. Invention in these cases is the co-partner of system and order, for they go hand in hand together. Without invention the railway officer is deficient of one

important characteristic by which he can organise, construct and build up, and without it he will be certain to find himself unable to remodel or keep a large station working efficiently.

Both for economy and training purposes nothing surpasses the introduction of a reasonable number of well-educated youths of about fifteen years of age, but certainly not over sixteen years. Too many, however, of these at a station weaken the character of the staff, while too few or none at all has the same effect, because there is then no introduction of new young blood. As the child is trained in the nursery and thence becomes a boy in a public school, so a youth is trained in the rudiments of a railway office, and growing to man's estate becomes an experienced railway clerk. One most important principle of staff organisation is to avoid vesting the chief efficiency of the work upon a few of what may be termed "pivot" men, who, if suddenly withdrawn, will cause confusion and serious disturbance of the work. This can be cheaply and certainly met by a discreet intermixture of youths among the staff. A youth after three years working, from fifteen to eighteen years of age, is often quicker and able for more routine work than a man of twenty-five years of age. Thus, as a general principle of working, an agent should strive to work up a "second" hand able in an emergency to fill any particular post. In no other way can permanence and progressive efficiency be attained.

The grasp of mind necessary for railway organisation is rarely found in the every-day young man. It requires a combination of mental qualities peculiarly blended and allied with a practical detail knowledge of the business. There is a certain preciseness necessary in the organiser who is constantly obstructed by the daily emergencies that arise in the working of the traffic. A station agent employed in arranging the receipt and despatch of goods necessarily has his mind more or less full of expedients indispensable to carrying on such duties. Expedients and a proficiency in applying them readily to all circumstances that arise, renders the mind somewhat callous to the advantages of methodical plans. As a comparison it calls to mind the man who trusts to his memory with the man who systematically makes memoranda. The man of expedients is a man of tact, and the bias of his mind is rather to trust to this qualification than to the building up of organisation. The man of expedients is usually busy and in a bustle because he has always something *special* to arrange, while the organiser having brought everything within the scope of his system quietly watches the progress of his arrangements, fits in improvements wherever he sees an opportunity, and provides for such matters that daily occur as may require incorporating into the general system. For examples illustrating these two characteristics take the American and the Frenchman. The American is all expedients—he rushes at his work with an impetuosity and determination to accomplish his aim. To use his own expression he "piles into it," and generally succeeds *when* the work can be accomplished by forcible spasmodic efforts. His quick adaptation of the means to the difficulties and the leverage he puts on, often carries him through successfully.

If, however, his work is subsequently inspected it will be seen to have been hurried, and that the impress is left on it of his desire to "get through." There will also be found a deficiency of pre-arrangement with expedients brought in at the finish to repair oversights. It is useless to look for much organisation having been provided to facilitate on the next occasion the systematic execution of the same work, and as a consequence he has to again go over the same entire programme. Now, take the Frenchman, he surrounds his work with a series of troublesome checks, and to obtain checks he duplicates the work and employs extra men, regardless of cost or speed. His motto seems to be "certainty," and he sacrifices time and money to accomplish this end. He trusts to organisation rather than discretion, hence the institution flourishes more than the individual. With a limited power of discretion, expedients can have very little play. Whenever a difficulty arises where the enterprise of the American leads him to apply an expedient, the Frenchman pauses and introduces system. The one aims at bringing everything within the scope of his law, while the other hates all law and considers his own ingenuity superior to such a necessity.

As a class, railway men work harder and longer, and have a more difficult and complicated kind of work than perhaps falls to the lot of any other kind of business men that can be named. The multiplicity of detail, the necessity for quick judgment, and the inability to clear matters at once, owing to the work being spread so widely over the country, contribute to harass railway men and to take up the whole of their time with current matters. Pressure of events and the necessity of pushing on each day's work to meet the public requirements, moulds the "man in the gap" more or less into a creature of expedients. He must meet immediate demands, or some one else becomes "the man for the situation," and under this pressure he not unfrequently becomes the parent of loose patchwork organisation and slipshod work. He too often clutches hold of anything that enables him to produce an immediate result, but which "anything" is not always sound and durable. When it is considered that there are men all over the country unavoidably doing this kind of thing, can it be wondered at that we have patchwork organisation. Where you multiply minutiae not strictly subject to the leading principles of the organisation, it becomes like the growth of some excrescence upon the system, and certainly does not bring with it sound healthy progress.

With organisation of the best kind there is no confusion, as everything that has to be done has a little plan connected with it whereby quickness and order is obtained. Organisation prescribes a certain line of action in conducting work and gives birth to a rule by which each man's work is regulated. By each man carrying on his work according to the recognised rule, the different portions, when put together, will fit one into another, like the parts of a Chinese puzzle. The fact of the different portions agreeing one with another proves their correctness and harmony. Hence the importance of method where a number of men are employed, and the necessity of checks to keep each clerk's work right, so that the whole should agree harmoni-

ously. Confusion is the antagonist of proper organisation. Confused writing, confused figures, confused papers are all symptoms of an unmethodical mind. Where confusion is found an agent must not look for organisation but expect to have to teach and establish it. Unwisely devised organisation will lead to circumlocution and breed confusion. Hence too much system is as bad or worse than too little. Frequently from the confused state of writing and composition you may detect an unsystematic man, although you may not have seen him. It is a most certain fact that more than half the errors that occur at a station arise from confusion and a want of suitable organisation. Immediately an agent detects an error he should investigate the cause from which it arises, and before dismissing the matter bring his ingenuity into play to prevent a repetition by devising a remedy for the future, and then he may not again for years see that same form of error. If the cause was confusion or from a want of individual responsibility being defined, let the agent apply the remedy, and have the new plan carried out by the man in whose work the error occurred. If agents deal with all errors in this way, as they occur, the number in time will soon diminish to casual and unavoidable mistakes.

The duplication of organisation is a great danger, but is more frequently met with in government organisations than in any other kind. Here it will sometimes be found that the cost of adjusting errors far exceeds what would cover the cost of providing in the first instance, by better plans, for the prevention of such errors. With a large organisation there is always a danger of too much multiplication and duplication of plans far in excess of the requirements. This is illustrated by the principle in mechanics relating to the multiplication of wheels. If the wheels in a piece of mechanism are multiplied beyond a certain limit it can only be done at a loss of power. It is the same in a piece of organisation where too many wheels to prevent errors may cost more than the correction of the errors is worth. Too many wheels provided for the correction of errors may actually induce an increase of both errors and cost. The happy but difficult medium is the excelsior point to be attained.

Each man engaged at a station should have clear and defined responsibilities, and no scope should be given for the excuses "I did not know that was expected of me," or, "I did not know that that was my work." Each man should be held responsible for a certain portion of work, clearly defined, and if he fails to execute it, his explanation should be at once required. By inculcating the doctrine of individual responsibility, each man finds where the line is drawn, and for what he is responsible and what responsibility rests upon his neighbour. *This puts every man on his metal and enables an agent to clearly make some one amendable when wrong has been done.* Almost every man will try to show that he has not done wrong or will plead extenuating circumstances. Without this definite and individual responsibility, the faults and short-comings can seldom be fixed upon any one person, as each man endeavours to shift it from his own shoulders to those of his neighbours. In this way no one is convicted of wrong doing, and

when men find that conviction does not follow a fault, they are frequently indifferent whether they do their work rightly or wrongly. As far as possible the performance of every minor duty should be indisputably fixed upon some one, and then in case of error an agent can in a moment put his finger on the faulty person. Were all organisation strictly worked throughout on this principle there would be little room for shuffling and equivocating, as the black sheep would be brought to view prominently and at once.

An agent should apportion the work as equally as he can. Those who get the most pay should bear the burden of the day, unless when aged and from length of service men have grown somewhat incapable. If the better paid men cannot fill the hardest posts they become unfit to occupy those positions for which the increased pay is given. It is unfair to juniors to tax their willingness too far, and make them do more than they are paid for, when a man, getting, perhaps, a comparatively high salary may be lazy or artful, or perhaps incapable of performing the amount of work due from him. There are many duties upon a railway that any man of common sense can quickly learn to fulfil, but unfortunately men are often installed in, and promoted to wrong places in consequence of their qualifications not being understood. The men are judged from a few occurrences, and it is quite a matter of chance whether these are favourable or unfavourable, for the colouring of facts often give matters either of these appearances. A quaint old philosopher says, that when the world was made, there were two kinds of people formed, square people and round people, as well as two kinds of holes, square holes and round holes; and that the confusion which exists results from the square people having got into round holes, and the round people into square holes.

A staff of men is put at the disposal of an agent, and he must make the best he can of it. It is but fair that the work should be apportioned as equally as possible, in accordance with the rule that the man getting most money should have the most work to do, and the greatest amount of responsibility. If an agent unfairly apportions work, he calls forth the dissatisfaction of those unjustly treated. He also damps the ardour of a willing spirit by this unfairness. A willing man may always be kept so by letting him feel he could do a little more, but if you overpower him, and that unjustly, his disposition becomes soured, and he ceases to think that the most deserving are rewarded. He is converted into a "dodger," or one who will get out of doing everything he can. This class of men are the pests of agents, for they always have a lie ready to cover the fault which their cunning frequently makes it difficult to bring home to them. Let men know that those who do the most work, other things being equal, stand first for promotion, and that it is therefore their wisest plan to endeavour to keep themselves first. When changes take place offering promotion, an agent should endeavour to deal fairly by all who are deserving, as well as to make the change operate in the best way for the company's interests. Those who have the first call are the men that have been the most willing—evinced the best capacity—

been most regular and well conducted. Length of service speaks for little, unless accompanied by the traits above-mentioned. Where two men are equal in their ability and conduct, then the oldest servant should have the preference. Let an agent make the most of a vacancy by using it to improve the position and salaries of as many deserving men as possible, but he should not put men to duties which he thinks they are unable to learn to perform. Rewards to those who strive for them are incentives to renewed action. A man striving for reward, and undeniably deserving it, if he does not obtain it is dissatisfied and with reason. An agent should encourage men to hope for preferment, provided he can give them an opportunity of realising it when the proper time comes; but an agent should not deceive a man by encouraging him to hope for certain things, when the agent either cannot or does not intend to attempt to realise such hopes. As an hopeful man, however, is apt to interpret encouraging language (except when expressed in very explicit terms) as an actual promise, if an agent is not careful he may oftentimes run the chance of being accused of a breach of faith. In a general sense then, an agent may bid every man hope, but he should not verge on to promises unless he can fulfil them. If an agent does promise and then disappoints a man, the chances are that the man will cease to respect the agent, and it naturally follows the agent gets his silent ill-will and only a dogged performance of work, while at the same time, the dissatisfied man is very likely to imbue others with a dissatisfied feeling. As a man and the superior officer at the station, an agent should possess the good will of every one around him, which he may easily do if he acts a manly part, and is fair and just. An agent should not promote a man because he is an old friend, to the detriment of one who has stronger claims upon the service. All the staff should be treated alike, for favouritism opens the door for gossip and admits of justifiable complaints and grumbling.

It is better for an agent not to have a relation directly under his control, because few men can officially treat fairly both a relative and a stranger, as more consideration will naturally be shown to one than the other; hence jealousy and envy are spread amongst the staff and discipline is not kept up. The characters of some railway clerks have been seriously impaired from the fact that their tempers have soured by a continual disregard of their hopes and strivings.

When men have to direct under an agent the agent should uphold them in their position. Clerks in charge of offices and foremen are little masters under an agent and are therefore entitled to some distinction of treatment. If a foreman and a porter are treated on the same level, and no more consideration is shown for one than for the other, the two are put upon a par with each other, and how, then, can an agent expect one to pay heed to the instructions of the other. The foreman feels himself lowered, which the porter notices and presumes upon. An agent should uphold each man who directs the work under him just as an agent expects his manager to uphold him. To a great extent it rests with an agent to draw the distinctions and to maintain them. An agent should not uphold his deputy when

wrong but censure him, though, in most cases, privately. If the deputy has wronged a man let the agent make the best of it and tell the man that what was done was contrary to his wishes and that he has cautioned the deputy not to let the like occur again. In most cases it is best to have men face to face and then and there convict the faulty person and reprimand him whether he be clerk, foreman, or porter; but this greatly depends upon the character of the offence, the circumstances, the men concerned and the current state of the discipline at the station. When a deputy cannot carry control he fails to fulfil the duties of his position, and if after a fair trial it is seen that he cannot take the lead, the sooner he is removed from a false position quite unfitted to him the better.

An agent at a station of any importance should have a good second in the person of a chief clerk: a man having a practical knowledge of the whole of the business, and while perhaps doing a correspondent or a ledger and balancing clerk's work, acting in reality as assistant agent. In fact, it is to be regretted that there is not a special grade established of "chief station clerks," who would act as supernumerary agents. A man should have acted as a chief station clerk for a certain time before he obtains a station agency with a goods traffic. All stations do not require a man of this class, as the agent, if up to his work, is sufficient; but some stations do, and it is a very difficult thing to find suitable men to fill the post, because it is not held up as a position for which men may aspire and qualify themselves.

An agent should fix and have well understood the hours that each man or set of men are to work, when they are to go to their meals, and when to return. The men should be regular in their attendance, and when absent from illness they should send to the agent a messenger or post card to explain their absence. It is well to have time books for noting the commencement of each man's work in a morning, and its termination at night. This plan offers to a clerk or porter who wishes to work hard, an opportunity of showing how well he has sustained his exertions. It is also a check upon "shufflers," and shows with what amount of continuance their work has been carried on. Time books generally are carried out to too great an extent or never properly kept up. Where an agent grudges men twenty minutes or half-an-hour, depend upon it they will grudge to give that time extra if the company want it. Give and take. A liberal policy should be carried out with a time book. It should be put in force as a *record of valuable service*, not as a check to prevent a man monopolising ten minutes of the company's time. Where a man makes a *daily habit* of abstracting by late attendance an unreasonable time he requires checking, especially if his work is neglected and not done in time. In such cases it is a very effective plan every Saturday to abstract the total number of minutes the clerk has been late during the six days of the week, and then require him to come on duty that number of minutes on the Monday morning before the ordinary office hours.

Care should be taken to prevent one clerk entering the name of

a fellow clerk in the time book, whether the fellow clerk may be present at the time or not. It is a good plan to give each clerk a number in the time book, so that each clerk's signature may be always about the one place on each page of the book.

When clerks are habitually late it may be supposed they desire to take their yearly holiday piecemeal day by day, and thus forfeit the indulgence of a summer vacation. Another kind of pressure is to make the Saturday half-holiday to each clerk conditional upon the punctuality of his attendance at office hours.

A responsible clerk should keep the time book on his desk and, as a general thing, see that each man enters his name and the exact time he commences and leaves work. A weekly or monthly summary of each man's time made from the time book showing the total time late for the period is useful to check persistent bad attendance.

Few agents are able to commence the labours of the day with their porters at six or seven o'clock in the morning. It is very important therefore a check should be established to insure that the men commence at the appointed time, and it is well for an agent to sometimes meet them in a morning when he is least expected. If an hour is lost in unloading waggons in a morning, the goods are not delivered as early as they might be, hurry and confusion are the consequence, and the men are driven to do the work in less than a reasonable time. The necessity for more power often results from not commencing the unloading and carting out of goods an hour or two earlier in a morning. A foreman or checker should keep a time book and as the men come into work of a morning the time of their arrival should be noted. The foreman is thus made a timekeeper and the necessity arises for him keeping good time himself. If he has to be at work early he will take good care his men come too, or if they fail he will show them up. An agent should appoint a certain day in the week for the time book to be laid upon his desk for inspection, and then he should call up all offenders beyond the time of grace to account for their delinquencies.

It is often the case that during some part of the day, probably at its commencement or termination, the work is not so heavy as at other times, and that at such slack periods there may not be occasion for the full staff. If this is the case and yet there is occasion to make long days, an agent can arrange for half his porters to commence early and leave early, and half to come on late and remain until all is finished; thus there are men at work early and late, and yet they are not worked too hard. With judgment and planning the system of relays can be worked with very great advantage both to masters and men. When a dozen men commence at five o'clock in a morning and work until five at night, and another dozen commence at nine in a morning and work till nine at night, those twenty-four men will do far more work, and do it better, than if they all commenced at five in the morning and worked till nine at night. An agent should therefore work relays where he can with any advantage, and let each man alternate with the early and late turns. Working men efficiently depends much upon the time when *the work presents*

itself for execution. The leading principle should be to do it the moment it offers itself. By starting men at three or four in a morning to unload, check, and separate inward goods, perhaps the heaviest portion of them can be delivered by ten or eleven o'clock, and thus leave a clear stage for sorting and receiving outward goods; but it depends entirely upon the time when the goods trains bring in the trucks. The relay system has not generally received the attention which it merits, and it is principally confined to large stations where certainly it has a wider scope. Yet agents at most stations might frequently apply it to shorten the hours, and expedite and more equally distribute the work.

Where the inwards and outwards work is done by separate gangs of porters, it is sometimes necessary, if there be a slackness in the work at certain hours of the day, on one side or the other, to transfer some men from one side to the other for a few hours.

It is a most unwise proceeding to change members of a staff immediately on an agent taking charge of a station, because the more consolidated the staff, the less the difficulties for a new agent to surmount in acquiring and mastering the peculiarities of his new charge.

When books are not supplied by the stationery department in the particular form suitable to gain the special results desired, rule a foolscap book rather than neglect the attainment of the results.

TRAINING.

Ideas upon training railway clerks are vague and imperfect in the minds of most railway men. All agree upon the necessity of training and all are eager to obtain employee's skilled in the business, and yet few have any settled plan in their minds as to how training may be advantageously effected. Some persons have floating ideas about a "model training station," something after the model farm plan, or on a similar principle to surgical tuition where the pupils "walk the hospital." Such a plan would doubtless achieve the purpose, but its adoption would be surrounded with difficulties, the principal of which are—(1), it would be very expensive; (2), it would be very difficult to get the different railway companies to unite and bear the expense; and (3), the object is an awkward one to carry out to the equal advantage of the several different companies. We therefore dismiss the idea of a model training station, because any station may be made, on occasion, a training station.

What the railway system lacks is special "teaching power." In a sense every supervising officer is a teacher, in that he exacts the performance of certain particular duties by those men whom he controls, but this is only random teaching. Furthermore, it is not only random, but it is distinctively sectional teaching, and yet not sectional in respect to being part of a systematic whole. If teaching power is to be made efficient, it must be organised as a distinct branch, unassociated with the maintenance and conduct of the every day work contracted for between the companies and the public. This teaching power must be a control circle inside the present circle—it must be free

from responsibility as "to getting the work done," but with sufficient control power to train individuals in the way the work should be done. Its function should be more of an audit and educational department than an executive one. There is no occasion that it should infringe upon any other department, but act as a supplementary one to all other departments. Apart from some preliminary extra expense, it would not occasion any permanent additional cost, because in the future it would lead to a reduction of expenses in all the traffic offices and departments by reducing much of the present inspection from headquarters, and the avoidance of thousands of errors by increasing the efficiency of the subordinate staff doing the work.

Incidental to the "teaching power" would be a periodical classification and assessing of the efficiency or inefficiency of each man, as it were appraising each man's relative knowledge of the business and consequent value, and by a speedier process than is now done over years of service; in fact, the dolts would be weeded out and the path opened for active, likely young men eager to get on and able to work with energy and "go."

There are in the railway service at present two classes of men—(1), those who have become well trained and fit for anything; (2), those who have neither the capacity nor inclination to learn anything beyond what they have already acquired, and which they find sufficient to bring their fortnightly pay into their pockets.

These two classes require to be separated and formally ticketed, that within the service they may be generally known and distinguished. This may be easily done over a period by a system of examinations and the granting of certificates. The examination should be *permissive*, and then the two classes could be safely left to sort themselves. The organisation now in force for the Irish Intermediate Examinations would admirably meet the case. By these examinations about eight thousand to ten thousand students, male and female, are every June, examined as to their progress in general education. The examinations take place in all the principal towns in Ireland simultaneously during one week. The examiners never see the students, and the two are purposely kept unknown to each other. The students in each town assemble in a room and are supplied with seats, desks, pens, ink and paper. A few responsible persons as monitors walk about to see that one student does not copy or convey information to another student. Sealed envelopes are then opened with the printed questions which are distributed and only then known for the first time. A fixed period of time is allowed for each series of questions to be answered in writing. *Each student is only known to the examiners by a number on his paper.* The students' answer papers are collected at the expiration of the fixed time and sent to the examiners in distant towns. These examiners read the answers, and according to a scale allot so many marks to the answers given to each series of questions on each particular subject. A certain number of marks constitute a pass, and a certain number of students who get above a certain number of marks, obtain exhibitions or money prizes lasting over three years. The examinations are held in June,

but the examiners take their time, so that it is sometimes September or October before the results are published.

If about twenty railway managers would consent to act as examiners, devise the questions and go over the examination papers at their leisure this plan could be easily tried. Probably ten companies giving thirty pounds each would be sufficient to clear the expenses for a trial. On the first occasion the examinations might be limited to six towns and say fifty candidates at each, which would admit of three hundred candidates being examined for the first batch, or thirty for each company.

This is not the place to enlarge upon the plan, and our aim is merely to ventilate the idea and see if any response may come from railway employees themselves, as we feel sure that if the staff desire such an arrangement, it only requires for it to be made known when the various companies would cheerfully accede to the examinations being tried. By this plan each company would train their own men after their own ideas, and in a little time competitive emulation would be evolved by the companies competing to produce the best men.

The common objection to competitive examinations is that they lead to cramming, but with the examinations here proposed this objection is quite out of the question. No candidate should be accepted for examination unless he produced certificates as having served for so many years at the business, according as might be fixed. The examinations would not be like competitive examinations in respect to general education, nor for particular vacant appointments, but simply tests of efficiency for men who had served for a fixed period of years and desired to afford evidence of their capacity in the details of the business. This would in no way interfere with the preliminary examinations each company now requires candidates to pass in general education before entering their service.

Training has two advantages, as it improves both the teacher and the pupil. In the performance of most daily matters, men are apt to lose sight of the first principles that underlie and govern business matters. The desire and eagerness to accomplish an object, often deadens the mental vision as to the governing principles, and failure can be often traced to an oversight in this respect. The accumulation of small things, and the duplication of plans piled one upon another tends to conceal first principles, but the instructor must go back to first principles, and during the progress of imparting them to his pupil, he resuscitates them in his own mind, which tends to give him increased solidity and depth. The beginner in training when commencing to train men has to recapitulate and review his own knowledge and experience. In acquiring knowledge the mind has to plod through a great amount of extraneous detail, so that it may gradually be conducted from the simple principles to the highest complications of any particular art. This process frequently takes years before completion, and when completed the first principles are then partially forgotten, and thrown aside with the extraneous details, instead of the first principles being resuscitated and consolidated with the higher attained perfection. The tendency of the age, however, is to find short cuts to

high attainments, quite irrespective of ground work, and hence the superficial qualifications of so many men. One of the best exercises to consolidate first principles in the mind, is to commit them to paper while visible to the eye of experience, and before something else obtrudes into the mind. The mind with many busy men is like a sieve, it is always sifting and losing. The sieve, like the mind, will only hold a certain quantity, and unless you commit the sifted thoughts to paper when running freely, they become lost, perhaps for ever, and even if recallable, will then have lost their pristine freshness. Experience is the mother of first principles, for by its aid we discover them; and we must go back to first principles to teach our youth progressively that which is tested and real experience. Circumstances change, and different kinds of experience becomes necessary, and new principles have to be established, and so experience and principles oscillate under the flow of circumstances.

Training is undoubtedly the leading principle of organisation. In every profession or trade a course of preliminary tuition has to be gone through, to impress upon the mind the ground work of every art. This training is undeniably requisite to obtain a practical knowledge of any business. Systems of commerce and arts are the growth of years. In the beginning they have been small and imperfect, but by degrees they have been built up, year by year, until intricate systems and organisations have been produced. A student seeking to understand one of these systems is in a similar position to the people who lived before its origin, he knows nothing about it. The discovery of its principles has been gradual and not unmixed with error, and the acquirement of these principles must be the same. It would be ridiculous for any one to attempt to practice physic until acquainted with the virtues and action of different medicines. It would likewise be absurd for any one to amputate a limb, unless versed in anatomy, so as to be able to tie the arteries; and it would be ruination for a man to invest his capital in merchandise, without understanding the principles of commerce. Yet this kind of thing exists, more or less, throughout the railway system. Men obtain the charge of passenger stations without a sufficient examination test as to their knowledge of moving trains or working signals, and also the charge of goods stations with only half a knowledge of the duties they have to perform and the control they have to exercise. The result is they flounder about, until by experience they get the corners rubbed smooth and rounded off, in accordance with the system. To provide for this, however, the executive, working from headquarters, is loaded with tiresome checks and counter checks, and, of course, at additional cost. Notwithstanding all these checks stations get into confusion, because the checks, being in operation from a distance, can only embrace leading matters. The question resolves itself into training a man by a system of checks, after he occupies a responsible post, rather than training him before his appointment to the post, so as to fit him for it. Increasing the efficiency of men by preliminary training will decrease the number of checks now indispensable, together with their cost. It becomes, therefore, simply a transposition of force, and a simplification of system.

The training at present partakes too much of training with the horse harnessed to the carriage, instead of his being trained in the brake, before being put to the carriage. Educated efficiency may and often does follow after promotion, whereas it should precede promotion. This is not only worse for the companies, owing to the increased cost of training by routine checks, travelling inspectors, and consequent frequent confusion of business, but it is also worse for the staff, many of whom at times find themselves required to perform duties they least expect, and for which they have had no suitable experience nor opportunity of acquiring a practical fitness. A member of the staff is required to perform his allotted duties with mechanical regularity, and he may or may not, according to inclination, acquire mechanically anything beyond. In fact, he has to pursue the business as a matter of rote rather than as an art; the one reduces him to a machine, while the other would elevate him in intelligence and train him to honourable aspiration. For years, side by side with the growth of traffic complications, there has also been a growth of "mechanicalism," if we may coin a word to convey our meaning. This may be productive of some sectional proficiency, but it is not inductive of a healthy stimulus, neither is it found to produce the experienced middle men in proportion to the demand. Men with sectional experience are numerous, but the responsible experienced chief clerk or middle man is scarce, because he is not a product of the present system. No business, trade, or profession can become the school to develop the powers of the mind, if mechanical rote is to be a leading characteristic, rather than the principles of the art which is at the basis of the business.

With all matters requiring constant supervision it is a good plan to note them on tablets under each day in the week. Thus each morning an agent is reminded of all the special matters he has fixed to look up on each day of the week. To engraft little additions on the work of the station, or to sustain plans that have a tendency to looseness, it is necessary to be continually looking them up.

Many of the leading clerks in the offices at the headquarters of every railway are estimable, experienced, and hard working men, but there has always been among them a considerable sprinkling of conceited young men whose claims to esteem have rested largely upon the fine clothes and fine airs in which they have arrayed themselves. These ornamental every-day young men very much resemble the lilies of the field, for many of them toil not neither do they spin, as do station agents and station clerks. They are unwisely selected for their dress and address, which may be well enough in a way, but before they are allowed to display their tact and adroitness as clerks in head offices they should be made to graduate for four or five years in a goods shed for ten hours a day, and then they would have some practical knowledge of the business added to their exterior qualifications.

The Cunard Steam Ship Company, running mail steamers so many years to America, are said to have never lost a vessel, and it has been attributed to their plan of selecting their captains. It was, and probably still is, their rule that no chief mate, however many years he

may have served the company, can be directly promoted to the post of captain. After a man has been a chief mate for a certain time he finds it necessary to leave the Cunard Company's employ and become a captain in the employ of some other firm, and after having acted as a captain there for a certain period, the Cunard Company will then, when a vacancy occurs, take him back as a captain, if he has proved himself to have been a successful captain in the service of the other firm. Thus there is fairly quick promotion among the mates, and the Cunard Company are freed from having to appoint a mate to be a captain owing to length of service. The Cunard Company also, by this plan, furnish captains to other firms and enlarge their circle and selection of captains for their own ships.

Much upon this same principle we advocate that no clerk of over fifty-two pounds a year salary should be allowed to serve in the head traffic offices of a railway company until he has had charge of a reasonable sized goods or passenger station or both, for a period of say three years. Thus all junior clerks in head traffic offices would either before or after attaining to a salary of fifty-two pounds a year, have to go out on to the line and graduate as station agents. If this became a rule of the service in the future with the junior staff, we venture to prophesy, which, however, is always an unsafe thing to do, that the work in head offices would be very much improved.

In the organisation of a general plan for training clerks in railway business there are many points to consider. The first truth to be recognised is, *that the best knowledge of goods detail is to be learned at small stations* where there are two or say three clerks. At such stations all the duties are carried on in one office, hence a knowledge in a simple way of the different branches may be found there centralised and accessible. The whole is narrowed and brought to a focus, so as to admit of an easy view being taken of the different sections, how one is blended with and overlaps the other, and how the working of one section affects another. In this case limited centralisation simplifies, whereas division at a large station mystifies the novice. This is so evident that it is needless for us to enlarge upon the matter as to why a small station is the best school to acquire a practical knowledge of details.

The next truth is, *that the best knowledge of system and organisation is to be learnt at a large station.* Where a man has some particular duty to perform, he finds method will assist him considerably, but if this one man's work becomes so increased as to require that it should be divided into twelve sections, and given to twelve different men to perform, then in addition to each man's method there must be a system or organisation introduced to insure the work of the twelve men being performed as perfectly as when it was performed by the one man. It may therefore be easily seen that system and organisation do not flourish so much at small as at large stations; in fact, the large station is the school for system, the same as the small station is for learning the details. Although a man may be methodical in his work, yet if he has not worked at a large station, it will result more from his habit than training. He will do his work in a particular way because

it is the way he was taught, and he knows little of any other. But let him have the run of a large station where he sees the work elongated, and a variety of system which previously was unknown to him, and it will then be seen that having already saturated his mind with the details, he commences to apply system and organisation to them. This, perhaps, leads to some alteration and improvement in his habitual method; but whether or not it results in his becoming methodical from reason and from having obtained an insight into system and organisation on a large scale, and he becomes strengthened in this respect. This experience is calculated to give method an increased value in his eyes, because he becomes convinced of its importance both in great and small things. In great things to rule small ones, and in small ones, so that they may be fitted to become perfect parts of great ones.

Having set forth the principles of general training, it now remains to show how they may be best carried out. It will be seen that we advocate first the acquirement of the details at a small station, and then the acquirement of system and organisation at a large station. This admits of the use of suitable small stations for training purposes, not, however, for a number of pupils at each station, for we would not recommend more than one or perhaps two at a station. Arrangements for the tuition of the present staff in a knowledge of all station details is far more difficult to compass than the gradual tuition of a new staff of juniors, because the juniors might be supplementary, whereas the present staff at each station are so fully employed as to have little or no time to practise other than their allotted duties. To meet these difficulties, we would attach one well educated youth, and, if possible, the son of a railway man to each suitable small station. On no account set him down to be responsible for a particular duty. Place him first with the checker to learn the loading and checking of forwarded goods. On the first of each month call all these youths together at some central district station and have them examined separately as to the loading and checking of goods, and after such separate examination explain to them in class how the work should be done, and call their particular attention to the salient points. Keep them another month, or longer, according to their progress, at the same work until they afford evidence of having mastered it. Perhaps at the end of the second or third month some of the sharper ones may be found equal to a change; if so, then put them through the same process to learn invoicing, delivery, abstracting, ledger posting, cash checking, clearing outstandings, the principles of debit and credit, and, lastly, correspondence. During most of this time the pupil should be free from any particular permanent duty, and be treated as a learner and an extra hand, helping and learning from the permanent men. He should not be confined to any set duty, and he should not be taken to another station and imported into the regular staff until the completion of his course of training. When a youth gets sufficiently experienced to be trusted, which he will do before his course is completed, some portion of his time might be devoted to liberate a regular clerk who may desire to

put himself through the course, and attend the monthly meetings which in time would become lectures on the various branches of the business. Fill up all vacancies at large stations with clerks who have passed through the course, and who have consequently a practical knowledge of all branches. Let it be recognised that removal to a large station would be promotion in a money sense, for the purpose of acquiring system and organisation and the science of the business. All vacancies for station agents, where an agent cannot be promoted from a lower grade station, and where an agent has to be taken from the clerk grade, let such clerk be taken from a large station, and let him be one who has passed through a course of the details as well as a course of system and organisation. The advantages of this would be manifold—(1), it would introduce a spirit of emulation; (2), it would generally improve the staff; (3), it would provide an acknowledged channel through which promotion might be attained; (4), it would give a healthy stimulus to the entire staff; and (5), it would sift the tares from the wheat.

With some companies there is a growth of the gentleman cadet system, that is the appointment of gentlemen's sons to be clerks in district managers' and superintendents' offices. There can be no objection to improve the quality of railway men by the introduction of a higher social class of labour, but it is bad organisation to commence to teach them the principles of control in a manager's office, before teaching them the details of the business at a small and a large station. Such a cart-before-the-horse arrangement may produce a somewhat flippant railway official, but it will never produce a solid experienced officer, such as many of the old managers have been. Managers' clerks who have become managers without having acted as station agents have seldom turned out in quality equal to men who have worked up from subordinate station clerks to be station agents, then managers' clerks, and thence to the managerial chair. As euclid exercises and develops a boy's mind, so do the details of railway business at stations, and any other system of training youths, whether gentlemen's sons or clerks' sons, will only be productive of failure and disappointment both to the companies and the aspirants.

The leading difficulty which retards the introduction of any system of training, is to liberate the men from their present regular duties, so as to give time for training in branches other than those with which each man has a knowledge. This could be done under the system we have sketched, and at a very small expense, because at country towns many parents would gladly send their sons for three or six months training without expecting any remuneration. Indeed, the youths would not be entitled to any, because they would not be made responsible for any particular duty; but if they should occasionally be used to temporarily fill a vacancy, then give them some pay on an extra pay sheet.

To train, you must have a centre from which to exercise control over those who are being trained. We think the difficulties are such that the youths cannot be trained together, and it would be better to train them separately; but there must be some special directing

influence to regulate the training, or it would rest entirely with the station agents, as at present. This directing influence should be brought to bear at the monthly class meetings and would be the spring of the whole system.

We can see difficulties to be overcome, but none that may not be surmounted. The good that might be achieved would not be attainable at once, it must necessarily be gradual, but that good would ultimately result by the plan here laid down, we have no hesitation in asserting. We have individually laboured to make the railway clerk and agent more efficient, not because he is in ability below other employees, but because, by adding to his efficiency and bringing it up to the highest possible standard it will raise the character of the business—elevate the individual, and give him a better standing than is often accorded to the railway man at present.

Teaching power in the abstract, and as a distinct feature of the railway service, is conspicuous by its absence. This is attributable to the presumption that it is provided for in other forms; but the fact is, that the necessity of teaching power is not duly appreciated nor understood. There is a period of pupillage furthered by progressive examinations in engineering, medicine, divinity and law, and why not then in railway work? It is perfectly true that the teaching and training of young men for professions does not make them all perfect masters of their subject, but it certainly brings the rank and file up to a certain higher stage of efficiency. In all large organisations it is the rank and file men that stand most in need of their efficiency being heightened, and it is here where the teaching power is required. Most young men possessing special abilities will be certain to forge their own way to the front. The efficiency of the railway service, however, principally depends upon the efficiency of the rank and file; and although good officers help to make good men, it is only by constant personal drilling, which is synonymous with teaching.

The substitute at present for "teaching power" in the railway service is (1), station agents in a general way supervise each clerk on their staff so that he may get through his particular work fairly well and that his mistakes may be kept within a certain reasonable average. This supervision, however, is limited to the particular work allotted to each clerk and does not include other kinds of station work for which the clerk is not responsible. (2), Travelling audit inspectors supervise the accuracy of the station accounts, and direct the particular clerk or clerks doing this work as to how it should be done, and then auditors also largely direct and regulate various parts of the work at stations in such a manner that it may assimilate with the requirements of the accounts. But these auditors are not travelling schoolmasters, to drill all the clerks into all the branches of the station office work, nor are auditors, as now constituted, qualified for such an office, because usually their knowledge as departmental men is confined to matters of accounts.

Travelling train inspectors, travelling searchers of lost goods, travelling police and signal inspectors and other travelling officers simply confine their enquiries and admonitions at stations to the

particular branch they are sent out to look after. Travelling district superintendents, by the scope of their positions, may give directions at stations about any work, but their duties embracing the charge of very many stations are necessarily confined to looking after the general executive working of the traffic, avoidance of blocks, late trains, suitable times for trains, investigation into serious complaints, accidents, breaches of signal rules, &c. This precludes travelling superintendents from being able to exercise teaching power to individuals in respect to details, for as it is they have too little time to spare and too much ground to cover. In fighting the battle of keeping the current work going every one is always in action and fully employed and there is no time for drill; every soldier falls into line and keeps loading and firing his piece as fast as he can, trying to mend his aim after every bad shot.

When a vacancy occurs at a station where several clerks are kept, a difficulty frequently occurs in filling it up. A new junior is often sent to make up the number of clerks allowed for the work, but he may not be fit to fulfil the duties of the clerk who has left. Then several changes in the offices are found necessary, and the fitness of the different clerks for the different kinds of work has necessarily to be canvassed. One change may render three or four other changes necessary. Then it is found that one clerk has not before done one kind of work, and another has not done some other kind of work. Some clerks are timid and disinclined to take up new work, while others object to be put back to work they have previously done and want something new. All this changing of duties no doubt over a time slowly contributes to train the men, but it seriously inconveniences and disorganises the work at the time and irritates the staff, and when it occurs too frequently, causes much confusion. If the clerks were, during a period of pupilage, systematically grounded in all the different kinds of office work relating to goods and passengers, these temporary upsets would be avoided, and there would be then less difficulty in transposing men when the exigencies of the business might render it necessary.

We are aware there has been a plan in Scotland, and in a few other instances in England, of taking clerk apprentices, but we never heard that any teaching-power was specially applied to coach them in the sense we advocate.

It fell to our lot when in Canada years ago, to act the part for several months of what was facetiously termed a railway schoolmaster, and it is probable that out of this circumstance, a special taste in that direction was developed. The Buffalo and Lake Huron Railway had just at the time been transferred from a bankrupt American Company to an English Company, and the staff and work had to be remodelled. The station masters were a mixed lot of English, Americans and Canadians, and we were engaged to travel about continually from station to station to coach them out of the American and into the English system of accounts and station working. If a station master found himself in a difficulty he telegraphed and we went to his aid. It was a kind of experience that has proved of the greatest service to us through our

career, and out of it came the idea, conceived in Canada, of writing the little handbook of station management published in 1861. That little work attracted attention at the time, and led to our being selected as accountant to re-organise, during 1862-63, the inside work of the London and North-Western Company's London Station, at Camden Town, then in a muddle from the transference of the inside work from the carting agents to the company. This experience, coupled with the same kind of thing in India, where, in like manner it fell to our lot to train Hindoos, Mahomedans and Parsees in station work, has led us to the opinion that every moderate sized railway should have one or more "travelling organisers," free from the hurley-burley of the business. Travelling auditors now cover some of this ground but certainly not all, though it would be quite possible to remodel the travelling auditors, and increase their number to meet such additional features. But to do this they would require additional training, and instead of being selected from the audit staff they should be taken from among experienced station agents, and if necessary, coached up in the audit-of-accounts branch of the work. They would then be qualified not only to go to a station and figuratively turn all the work and men "inside out," but also to coach each person in every kind of station work, from the agent downwards. They should combine both the detection of errors, of fraud in accounts, and of bad system, with special teaching power to individuals; and each travelling organiser and auditor should have only as many stations under his charge as could be frequently visited.

The little handbook of 1861 previously mentioned, was, we believe, the first book of the kind published, and although two smaller treatises appeared afterwards, we think they did not attain much circulation. The handbook would seem to have proved useful to many companies' officials in the compilation of goods rules and regulations, and in one case in India, we found whole pages of it had been cribbed to form a book of goods instructions.

An agent at a busy station cannot be expected to convert himself into a schoolmaster and make it a business to teach novices their duties. All he can be expected to do is, from time to time, as matters turn up, to explain and direct how they should be dealt with systematically. The company are morally bound to supply an agent with men having a fair knowledge of the business, seeing that an agent is not allowed to select his own staff. An agent may advisedly, from time to time, change men from one kind of work to another, and thus give them an opportunity of acquiring a different variety of duties, but this requires to be done with caution, and changes more often than once in twelve months are not desirable. If an agent will condescend to explain the course of the work to his men on occasions, and avoid abruptness and monosyllabic answers, he may do much to improve his novices. Agents, as far as possible, should endeavour to educate their staff in a knowledge of the business and not confine instruction to each man's own particular duties, but try by explanation, from time to time, to convey to each man some knowledge of the whole of the station work. A man who knows the whole system of

the station work and the different courses through which it travels in order to gain certain ends, is more capable of forming an efficient link in the chain, than if his knowledge is confined literally to his own particular duties. It is quite compatible to educate a man in the whole of the work, without making him unduly wise or putting into his mind knowledge by which he may unduly criticise the agent's actions. An agent's experience, as an agent, elevates him into a position in the management that a subordinate can never attain, until invested with all the responsibilities of an agent. Let an agent express willingness to answer all questions about the work which the clerks may desire to put, and explain and show them that which they do not understand. Nothing will so much improve the working of a station as to improve the staff. It thus becomes a personal interest with an agent to make his men efficient, so that the work may be done with the highest possible finish. Some few clerks with discernment, perseverance, and special aptitude, will very rapidly learn the whole of the work at a station, and then hector it over their fellow clerks. It is therefore wise for an agent, as far as time will allow, to train and instruct all his men up to an even level of efficiency. The training that men usually get is, that they are taught to do right by being over a time censurably corrected when unknowingly doing wrong. This is rather a hard and slow process of training a man into his duties, and the way to fulfil them.

Carelessness, when not wilful, is a want of thought and a want of caution. A man of this class wants continually checking and admonishing, and must be ceaselessly stirred up. A cautious man comes to an understanding with those who work about him, and draws a line as to what his responsibilities are, and what the responsibilities are of those under him, and those working in connection with him. The desire to guard against error, stimulates his mind to provide checks to prevent error. An agent need be foreseeing if he wishes to avoid disputes with others, and to do so he should draw an imaginary circle round his own work. Let him keep inside such circle and keep all intruders outside, and disputes, quarrelling and unpleasantness will be prevented, and each trader, subordinate, or contemporary will be taught his proper limit.

A man of business is not in the true sense of the word a business man, unless he is systematic and orderly, and these are traits absolutely indispensable for a successful agent. Without system and order there is no regularity. The old adage tells us to have a place for everything and to keep everything in its place, also, to have a time for everything, and that everything should be done in time. These truths are universally admitted and may be deemed common-place, but yet to practice them a man must be orderly by nature or by training. With a naturally systematic man work is carried on steadily and done in time—he is never driven to act hurriedly, and consequently imperfectly—he takes one piece of work in hand at a time and continues steadily at it until completion—he does not flutter about doing a little at this and a little at that and leaving many things incomplete. No, his work moves on as regularly as the hands of a clock, each hour brings its work

and its performance. The orderly man does his work so that it rarely comes back to him for correction, and will always bear scrutiny. He may have a low fixed rate of speed, beyond which he objects to go, but then, that very regularity of movement makes him more certain in what he does. You will not find him sending returns away full of errors and incomplete, nor in correspondence giving an indefinite reply, because it is too much trouble to reference up the facts of the case, in order to give a definite one. *He likes to clear as he goes on and to complete each piece of work as it presents itself.* That which he does he believes in doing well. He has a horror of seeing things otherwise than in their places, and often in carrying this principle out, in trifles he may even seem ridiculous.

There can be no efficient organisation without orderly habits with each individual. It is not orderly to have books knocking about as they often are at stations with dirty thumbed leaves. Old books out of use are too frequently thrown under desks for clerks to put their dirty shoes upon, or perhaps, piled in a corner of the goods platform among the dirt, or used on a chair to make the seat higher. At all stations a space should be boarded off on the goods platform to form a book room, where books out of use should be kept in order on shelves for say six years. The period fixed by the statute of limitations is six years for the recovery of debts, and after that time books may be sold for waste paper. It is not orderly when three or four books have been taken from their places for reference purposes, to leave them open on the desks, when done with, for some other person to put away. In matters of this kind an agent should set his clerks an example; and when he has had a book in use, returns it back into its place when done with, and in like manner make every one do the same. Then persons will not have to hunt over the office when wanting a book, for there being an appointed place for it, any person may put his hand upon it in a minute.

Some men are prone to have half a dozen places for the same kind of papers. They will put letters, consignment notes, telegrams, orders, &c., mixed indiscriminately on three or four files, or perhaps stick them against the wall on nails or pins, or push them into drawers with forms, and thus when they want a particular paper it takes half a day to find it. At times they become penitent and set about keeping things according to some newly devised plan, which lasts perhaps a few weeks and then they relapse into greater confusion than before, for instead of centralising they have further divided their papers and complicated matters worse.

GENERAL ORDER BOOKS.—These are generally guard books into which orders and circulars are gummed. Our experience may differ from that of others, but to our mind there always appears a difficulty in quickly turning up general orders and circulars at stations. This is not always or entirely the fault of an agent, but rather the want of uniformity and arrangement in the size and issue of the documents. In the first place standing orders and ephemeral circulars are too frequently mixed together. Some matters that should be issued as

"standing orders," are issued in circular form and *vice versa*. We should like to see a distinct recognition of the two terms, and a careful classification of the subject. "Standing orders" should mean regulations, that as far as can be foreseen at the time will continue certainly for years, and possibly for all time. Circulars should mean matters of an ephemeral nature, that in a week or month will have passed into oblivion and rendered the circular waste paper. This separation would render necessary two guard books, but it would consolidate the standing orders and reduce the confusion incidental to a larger collection of papers. Another objectionable feature is that neither general orders nor circulars are printed on uniform sized paper, sometimes foolscap is used, sometimes letter size and occasionally note size. The economy of the paper should be of less consequence than the uniformity of the documents and the facility of reference. Whatever may be the size of the paper selected it should be adhered to, and it would be better to use paper of one size for standing orders, and paper of another for circulars, or if the same size is used for both, then adopt a different coloured paper for the circulars.

For the purposes of further condensation and facility of reference, every one, two or five years, according to the extent of the standing orders, we advocate their being re-edited, amended, corrected and printed in pamphlet form with paper covers, marginal notes, and a good index. Thus there would be a periodical recapitulation affording increased facility of reference, and a reduction of semi-loose papers in guard books at every station.

DISCIPLINE.

Individuality of an agent and his personal ascendancy—will—power and originality of character—imparting knowledge, and the effects of imitation—earnestness and enthusiasm infused throughout a staff—consistency of agent's conduct in sustaining discipline—inconsistency destructive—impartiality and partiality in the treatment of men—sympathy between an agent and his staff—"order," to minimise human infallibility—kindness and an approachable manner—order—obedience in relation to duty, to restraint, to habit, and to rules—hope of reward—vacillation of character injurious—reprimands, chiding, and censure—competition among men to sustain emulation—fear of punishment—public opinion of the staff upon the agent's reputation—discipline general.

UNDER this heading is embraced the control and government of the staff and the personal qualities desirable that an agent should possess. Discipline may be taken to mean the use by an agent, of expedients and inducements designed to compel the staff to correct behaviour and the due performance of the work. When successfully inculcated, the outcome will be the attainment of the desired end. Discipline depends mainly upon putting into motion a sufficiency of will force, such as to produce a defined line of conduct on the part of the staff.

Discipline is a polychrest word, in that it covers or embraces several meanings that may not be all vividly before the mind of the reader at the moment. The word is applicable to *order—teaching—training—restraint and punishment*. Now order, teaching, and training we have endeavoured to dispose of under "organisation and training," and therefore the following pages more particularly apply to restraint and punishment.

When discipline is neglected an agent will soon find himself unable to keep up an efficient system at the station, and if the system breaks down, disorder and disgrace to the agent will surely follow. Discipline being a restriction to a particular line of conduct, which usually jars with men's nature and vanity, it is as a consequence frequently violated. Many men seem to instinctively resist being required to do particular things, when the doing of such things is not dictated by their own sweet wills, even although they have contracted, by the conditions of their service to yield obedience to all lawful orders.

To lead men to work cheerfully and with a good will, may be cultivated by an agent as an art, but it is usually an innate faculty born with the man. That some men by their dispositions seem born to govern, while others are born to be governed is a truism generally admitted. Many men, however, are gifted with most remarkable personal qualities, possessing great fascination of manner and large powers of persuasion. Firmness of character and purpose in a station

agent impresses upon the staff that he is a man whom they must obey, and that his instructions must be implicitly carried out. Where this feeling pervades the minds of the men, they act in the agent's temporary absence in the same manner as when he is present.

The efficiency of discipline depends largely upon the arrangement of the control-power being constituted in such a way as that its mandates can be readily enforced.

INDIVIDUALITY OF THE MAN.—In order to manage a staff of men successfully, discipline in respect to a prescribed line of conduct and action is indispensable. There are many railway men who have acquired a thorough knowledge of the working of a station and yet cannot manage one for want of, to use a homely phrase, the knack of enforcing discipline. Such men may make good clerks and under proper direction valuable ones, but when independent and acting on their own responsibility, they fail from an absence of consistency and force of character, and hence are unable to command respect and obedience.

It is the individuality and personal ascendancy of the man rather than the plans he puts into force that inculcates discipline. Some men seem born to govern while others appear to have no power to influence the actions of their fellow men. Not that they are exactly weak-minded, but rather that they possess no "power of sway." A perception of inborn character in others is a natural gift to each man, whereby he may gauge his fellow man. Thus employees look first at the *man* rather than at his acts, as his acts are simply the outcome of reason, while the control-power is rather an instinct or animal predominance. We see this in the animal creation where one or two buffalo bulls will control a whole herd, on account of their greater strength and animal determination.

Seeing that will-power is an influence to be wielded over the minds of the men, the personal character of the agent is thus of great importance. Men in a general way resist control and use all their ingenuity to break it down. To be a leader is to become a butt for covert criticism, for however many faithful adherents a leader may win over to support him, there will always be a residue of malcontents eagerly watching to disparage the leader's character and to condemn his acts. To win over and keep men as faithful adherents is not to be done by the will-power that crushes. The agent's personal qualities should command and inspire some measure of admiration and respect. Tone, bearing, manner and affability are here contributing and necessary characteristics. Men expect a leader to be a man in every way better than themselves. In their own secret thoughts they may pit themselves against him, and self love will encourage them to think the best of themselves whenever they discern a fault in their leader's character which they imagine absent from their own. A reasonable amount of originality in an agent is also so much increased strength. Men of originality are usually men of some ability, because they question everything for themselves and sometimes act differently from the average run of persons. Men too sensitive of the opinions

of others are largely conventional and become dreadfully outraged by originality.

To command respect a man must be worthy of esteem. To be able to command others an agent must be able to command himself, to control his temper, to avoid rash and unfair judgment, sudden outbursts of temper, sour looks, irritating taunts or covert sneers. He should have patience with ignorance arising from inexperience and hold none of his staff up to ridicule on that account.

The failings of an agent are very likely to become the failings of his staff, because, in general "like begets like," and a man must scrutinize very closely to perceive and check defects in others that are like unto his own. But, yet, occasionally a man who may be over sensitive as to one of his own failings will rush to the other extreme, and become, in consequence, the more bitter against his subordinates in respect to the very failing he cannot conquer in himself.

WILL-POWER.—The "make up" of will-power in the mind is principally self-esteem, combined with firmness, a dash of courage and a desire for admiration. According to the degree in which these "make up" qualities vary in measure in each individual, so the prominence of the one or the other quality gives a distinctive turn to the character and to all exhibitions of the will-power. Too much desire for admiration or praise will give a disagreeable vain turn—too much firmness leads to obstinacy and an utter disregard of all reason—too much self-esteem produces arrogance and over-bearing brute force—too much courage makes a man quarrelsome and contentious.

We have remarked before that "like produces like,"—thus, if one person becomes passionate, directing his passion towards a second person, the passion of the second person is most likely excited, and a contest ensues. If a person is mild in manner and tone of voice, he will be the more likely to develop the same mild feeling in the mind of the second person. In a similar manner, but in varying degree, is developed love, reason, conscientiousness, good nature, and all the other faculties of the mind. A person of elevated position, exercising personal control-power, can more easily assume the "positive," and thereby in a general way, excite relatively whatever emotions he chooses, in the minds of those persons who submit as "negatives" to his positiveness. Men mentally act and re-act one upon another. Will-power is the essence of control, and is, so to speak, the "positive" pole of the magnet, in respect to man. We must not, however, forget there is a will-power that crushes and a will-power that leads. The will-power that crushes is common to the brute creation and acts as an instinct. The will-power in man that should lead and direct, is in the abstract an animal instinct, tempered by reason and the various other humanising emotions given to man. Assuming that men submit officially to act as "negatives," that is, to become obedient, and that they possess average ability and intelligence, then the fault of failure usually rests with an agent. He will, perhaps, lack the skill to draw out the right action on the part of his men and clerks needful

to produce good work ; in fact, he will draw out his own "like" from his men, which unfortunately may prove to be a bad production, and hence "like master like man." The influence of such an agent is naturally bad, for it does not develop efficiency in others.

Will-power and the power of imitation are very forcibly illustrated in a school where a lot of boys are before the master in class. If the master indulges in a little story or joke, the current of thought in each boy's mind is momentarily turned to fun, and then in a few minutes, when the joke is finished, the change back to serious faces is equally quick and striking.

Will-power is subtle and difficult to define, but it seems to send out from the man a flood of influence like a magnetic current. Like a ray of light it animates and stimulates others as it emanates from the individual. It is one with the individual man and seems to illuminate him. Once it penetrates into and becomes accepted into the minds of others, it sways their actions and thoughts. By degrees a staff of men may be brought under its influence, and the person who wields the power then becomes the brain carrier and director of all the others.

There is an indefinable something in the eyes, bearing and intonation of voice, with many men that impresses even those who are on an equal footing with them. An order is given and there is a clear ringing sound in the words, that falling upon the ear of him to whom the order is given causes him instinctively to obey without question. We have often noticed this at sea with captains of ships giving orders to their men.

Will-power is the essence of direction—an agent feeling himself deficient, should cultivate it, but avoid mixing up with it pride or pomposity. An agent with fixity of purpose has in his mind defined objects to carry out; he is always clear and active in pursuance of his aims, and does not flag in his duties. A dictatorial manner is objectionable, and obstinacy in a wrong course is to be avoided. An agent may quickly humanise himself by putting the question mentally—"Should I like others to act in this way to me?"

Men occasionally from physical causes flag in their exertions and neglect rules and regulations. Sometimes, as a comical fellow has remarked, the "liver" is not the right side up. Hence men become mopish and depressed, there being a diminished supply of blood to the brain induces a corresponding want of mental vigour in the man. Thus men give way to a listless feeling and require to be gently admonished by an agent's "will-power" being infused into them to excite their latent action and dissipate their inertness. If an agent allows this kind of weakness in men to pass unnoticed, he helps to its repetition, and his staff may degenerate into indolence. The latest phrase to convey an idea of this condition of mind and body is "laxity of fibre;" incidental to the moist condition of the atmosphere in these latitudes. There is another condition of mind familiarly known as "dreaming," designated by the old Buckinghamshire word "sifeaxing" (from *sife*, a sigh; and *ax*, a paroxysm). This inertness

and indifference, however, is not generally a temporary condition or aberration of mind, but rather a constitutional infirmity.

We find men varying in qualities. There are men with a minimum of will-power, who are necessarily wanting in force of character and utterly unable to influence other men, and, in fact, hardly able to control their personal actions to their own subsequent satisfaction. Some such men, while deficient of will-power, may be both clever and possessed of experience, and if their one pair of hands could do the work of a large department, they might then, and only then, attain success. There are men with enormous will-power partaking largely of the brute creation and possessing a minimum of reason, conscientiousness, and the milk of human kindness.

When an agent is not acting upon his clerks and men by his own direct will-power, which he cannot do every hour of the day with each particular individual, the clerks and men are then left to their own devices. They may have had their drill and are left to carry it out. Man is essentially a creature of uniformity, because he is so largely a copyist. His powers of imitation are developed from the period of babyhood, and the average man thinks himself a great fellow, provided in ability he comes up to other men of his own class and beyond which he does not aspire. This imitation of others saves the average man a great deal of thinking, and neither the brain nor the ingenuity require to be much cudgelled; thus agents should utilize in managing their men the faculty of imitation as much as possible. If the clerks and men, when the agent is not actually overlooking them, have in him and his work a good "copy" to imitate, then good results may be expected. This "like producing like" is not limited to the agent's mind always acting upon their minds, but it follows that they take him as a type from which to copy, and as he may be good, bad or indifferent, so the best or worst of them are likely to imitate him in his official acts, and even hand-writing, assuming his will-power has been sufficiently strong to impress them.

Imitation, however, must not be considered as mere mimicry. It is a distinct mental capacity or "power to learn by copying." Persons when naturally deficient of this quality find it exceedingly difficult to acquire the power to execute the commonest acts of daily life. Imitation, however, has no relation to memory or the recollection of things. Imitation comes into play when an example has to be followed.

Earnestness in an agent greatly stimulates the faculty of imitation in the minds of his men. Earnestness and enthusiasm are near akin, and an earnest enthusiastic man excites and carries his men along with him to accomplish the object in view. How often has an earnest and enthusiastic "midshipmite" or ensign rallied a handful of men, and led them on to some desperate enterprise. The courage inherent in the men was lighted up and excited by the earnest and enthusiastic stimulus of their youthful leader. If a man be thoroughly in earnest, he is so absorbed in his pursuit, that for the time being he will have nearly lost his own identity, and his concentrativeness becomes fixed more upon the execution and *the doing* of the thing, than upon the thing itself.

The earnestness of units aggregated leads to general co-operation in the action of the many. If all men are earnest in the aims to be attained by the community, there is a united effort likely to produce success. When every person is planning for the one object and there is earnestness and unison, the result must be good if the object is good.

While endeavouring to picture what an agent should be to succeed, it may naturally be asked, how can a man be what he is not? This must be admitted, for neither our suggestions nor a stupid man's own endeavours will correct a natural deficiency. Our suggestions may prove of service thus far, that a stupid man may be led to realise his incompetency and remove himself to some other sphere more suited to him; on the other hand, an inexperienced man may appreciate certain innate weaknesses, and thereby be led to school himself to practice a line of conduct likely to be some improvement upon the past.

Consistency of conduct and manner is a great sustainer of discipline. It is an even-bearing rein—the keeping of the ship's head in the one given direction—persistence in the one set thing. There must be consistency in the mind of the leader, also in his language to the staff, and in his plans and instructions. The impulse and fad of the moment has often led men in authority to rush into language and orders that in a few minutes have torn up by the roots, plans and discipline that has taken much patient industry to construct. Ruthless innovations, too often merely experiments, designed by inexperienced persons, cause great havoc in the discipline of a staff. Inconsistent persons in authority will get fits of energy, and then bracing up their laxity of fibre, rush in and dislocate organisation, under the forlorn idea that an occasional flourish of the kind becomes their position. The poor spider has toiled and toiled to make his web perfect and able to resist every breeze, when along comes the inconsistent person in authority, who simply, in utter recklessness, pulls down the web, and leaves the poor spider to recommence his labours again.

Inconsistency both with respect to an agent's manner and speech is detrimental to discipline. Sometimes an agent will make himself with his staff "too sweet to be wholesome," and at other times he will snap the nose off every member of the staff who comes in immediate contact with him. Men thus never know how to take their agent nor what mood he may be in from day to day. This inconstant unequal state of mind and temper breeds inconsistency in the staff. Like produces like. An agent fails to impress his men uniformly with one frame of mind. Those of the staff who may sink their manhood by toadying to such an agent, have even a difficulty in distinguishing from one day to another how the weather-cock of his temper may twist. Queen Elizabeth, according to history, would appear to have possessed this kind of character, coupled with inordinate vanity. She suspected everybody and required her vanity to be constantly petted, and when she had won men's confidences, she often cut off their heads and took other favourites to destroy in like manner, that she might gratify her whims, malice and vindictiveness. At one time good

natured and patronising and at another time full of anger and vengeance. As Shakespeare says—

“Suspicion always haunts the guilty mind.”—*Henry III.*, act 6, v. 6.

A suspicious tricky agent trusts no one, for he believes all men to be venial and tricky like unto himself; and that if he displayed a uniformity of manner to his men it would lay him open to be tricked by them, and that therefore it is only by inconsistency and inequality in his temper and conduct, that the supposed venial tricky subordinates can be thrown off their guard and detected in error. Evenness of conduct would mean to such an agent over-weening confidence affording openings for deception. These are contemptible motives, and fortunately not very general in these times.

PARTIALITY AND IMPARTIALITY.—Partiality and impartiality are active influences in respect to the discipline of a staff, either to weaken or to encourage. Individuals who are on the look out for material likely to weaken discipline rejoice to see undeserved partiality shown by an agent. An exhibition of unfair or unjust treatment, either in the giving of rewards or the infliction of punishments, is eagerly taken hold of and published as a grievance. Absolute justice like absolute truth is in an abstract sense practically impossible. The wisest can only approximate to a high standard and it is in the degree compassed where the efficiency lies. To keep alive “encouragement” among a staff an agent must generally be impartial, as it is the aim of each individual subordinate to secure, if he can, partial treatment for himself. Some one or two really deserving men should be allowed to succeed to a certain degree in this, so as to keep up the competition, exhibit the laurels of success and keep alive the emulation of the rank and file. If it were arranged at a horse race that all the horses should reach the winning post at the same time there would be no winner; thus an agent may in a way show partiality as a reward in certain cases, but, like a challenge shield, the winner should only continue to hold it whilst he keeps it bright.

Partiality is therefore a means to encourage and sustain discipline, but to be rightly dispensed the judgment of the agent and the judgment of the staff must, in a measure, agree in respect to the suitability of the persons to whom the partiality is shown. The staff will look with delight when partiality is shown to one of their number whom they believe to be meritorious, because they take it home to themselves as an honour done to one of their class. Dickens points out that every boy at school has his number; so among a body of men, each man is labelled with the estimated qualities attached to him by the public opinion of his fellows.

“When men associate together day after day for a number of years both their excellencies and their defects become known to each other, and each man falls into the position to which his qualities entitle him. The opinion which any one clerk expresses of the relative merits of the other clerks, will generally be correct when his own interest (or malice) is not concerned. The opinion he may express will in fact be the opinion of the office, formed not only on

his own experience, but also on the experience of all the other clerks."—*Gilbart on Banking.*

The partiality shown to a particular man must not however amount to the selection of a champion of what is sometimes termed the men's rights, whom the staff desire to force up to power for some unworthy object. The staff can usually estimate with more accuracy than an agent, the efficiency and worthiness of one of their number. It does not, however, necessarily follow that a man, popular with the staff, is always the right man to be treated with partiality, for a man may be a jolly good fellow and immensely popular with his companions, and yet be only an indifferent servant to the company. In showing a partiality towards any particular man, the agent should be able to carry with him the judgment of the staff, in that the particular man is deserving of partiality. We have laid some stress upon this feature of discipline, because the display of partiality is usually and rightly so the forerunner of promotion and advancement.

KINDNESS OF MANNER AND BEING APPROACHABLE.—Rough answers produce wrath. A kind manner begets confidence. Kindness is often accepted by subordinates as condescension, and on that account it inspires respect, while an imperious manner excites resistance and obstinacy. Kindness often supersedes the necessity of punishment, because there will be no fault to punish. A kind manner makes an agent more approachable, and his men feel more drawn towards him, either to ask advice or receive instruction. It means mixing up in his manner, as master, a little friendliness. Too much stick is bad. Some men who, from small beginnings, have been very successful, seem to consider themselves so near heaven that they cannot condescend to speak to mortals in other than high-flown language. Something like the hero in *Iolanthe*, they are heavenly down to the waist. There is a Pecksniffian loftiness in the magnificence of their spurious condescension, productive of moral platitudes. An official much disliked, once reprimanded a man for not saluting him by touching his hat, insisting that he would be paid as much respect as Mr. So-and-So. "Sure if you wasn't looking for so much, perhaps you'd get more," was the reply.

Kindness of manner reduces friction to a minimum, and the avoidance of friction makes the bearings work smoothly. Some agents are unapproachable from their impatient natures. When a man goes to them to make a complaint or volunteer a suggestion, he will not be listened to, but referred to the foreman, to sift the matter and report. Some men, no doubt, are really tedious with their volubility of speech and complaints, yet it must be borne in mind that every man has collected some truths, not generally known, but worth acquiring. It is, therefore, well to be "approachable," and to encourage direct conversations with all the staff, and an agent will soon find out the grievance-mongers and be able to checkmate them.

Sympathy has been defined as the taking on of another's feelings. Intuition is, however, needed to discern what are another person's feelings at a given time. Persons who crave most for sympathy are

usually the least demonstrative themselves, and agents in authority are often so engrossed with their own self-importance they have neither time nor disposition to display sympathy. With the coarse, rude class of minds, though often possessing strong governing power, sympathy is deemed maudlin sentimentality, unfit for this prosaic world of hurry and fluster. Intuition of the emotional feelings of others is of great service to all who have to control their fellow men. If an agent can catch the sympathy of his clerks and men, and, as it were, carry them with him, he will then lead them to act as a united body, with the best results.

ORDER.—Time and place underlie the faculty of order, but an agent must have added thereto a little constructiveness and invention. Order may mean a state of things already established, or it may mean an aggregation of plans, designed to bring about a condition of order. Order, although readily perceived and beautiful to see in a high state, is yet quite a passive condition of things. It is the creative power of the individual behind the scenes that makes it and keeps it alive. Without this "creative-motive-touch" order will crumble and decay far quicker than it was produced. One man's "order" differs materially from another man's "order," and yet both may successfully accomplish the object in view. It is easier to have order with things than order with men, and also to have order with the things that one man controls individually, than order with the things that many men control. As you increase your men, the ratio of human fallibility likewise increases, and the difficulties multiply. Order is required to minimise human fallibility, hence the greater the number of men employed the greater necessity there is for a highly developed state of order.

OBEEDIENCE.—Disobedience is contempt for authority and a resistance of control. This is insufferable, even when it results from forgetfulness, because it shows an indifference of authority, and indicates that obedience does not carry the required weight to impress the mind. Some great man has said, that to rule with policy and successfully, a ruler must figurately rule "with an iron hand concealed in a kid glove," meaning that a strong will must be covered with tact and politeness. This is in a measure true, inasmuch as it is desirable to combine a strong will with politeness and consideration. But however true the simile may be, it has a sting in it, and is neither pretty nor is it pleasant to reflect upon. We prefer free outspoken language, indicating moral courage, and let the strong will only coerce evil and wrong-doing, and then no politeness is required to conceal it.

Obedience is classifiable under three forms—(1), duty; (2), restraint; and (3), habit.

Obedience from duty is beyond praise. It is the purest kind of obedience that can be rendered. There is a volunteerism about it, that means united effort for the attainment of the object sought. It is more generally met with in religious organisations than in commercial affairs. It is found in the family circle but less in commercial

life. It however touches somewhat upon the assumed rights of personal liberty. Many minds spurn the idea that a question of duty can be imported into a contract, to labour for stipulated weekly or monthly wages. The labourer is seldom paid equal to his expectations, and therefore he feels at liberty at any time to use his ingenuity to lighten his part of the contract. Duty is then pitched to the winds. Obedience as a duty amounts to the fulfilment of the contract to the fullest extent, and too many men have no such intention. Their intention is rather to huckster how little they can do and how much increased advantage they can grab. Such reflections are not refreshing and happily there are thousands of exceptions, but still there is an irreclaimable residue left as a thorn in the flesh of the organisers of labour.

Obedience from restraint may be yielded from a hope of reward or a fear of punishment. When from the hope of reward it is nearly akin to the obedience given as a duty, except that if the reward is too long before it comes the patience becomes exhausted and the defaulter then slides into the category of those who have to be controlled by the fear of punishment. Obedience from a fear of punishment must always be the ultimatum or *dernier ressort* to control men. The laws that govern nations are based upon penalties, and penalties are punishments; and it is the fear of suffering these punishments that limits the commission of offences against society. The rules for working railways are in kind the same as the laws for governing a nation. Both rules and laws are obeyed if there be sufficient vigilance in the detection of breaches and the infliction of suitable penalties for such breaches. Whereas on the other hand if the administration of the laws of a nation are lax, crime multiplies; and so likewise if the control-power of a railway is weak there is a growth of error. There is certainly this difference that crime is wilful and often committed purposely, while breaches in railway rules, though sometimes wilful, arise usually from carelessness or inefficiency. Still the dominating principle of the fear of punishment must be used to control the acts of some men, and particularly those men who have steeled their hearts against the influence of any other motive.

Obedience from habit is practically what most persons come to. It begins or should begin at home, when we are children—it is strengthened at school, and when we commence the work of life we have become, in a more or less degree, trained to habitual obedience that we may labour as units in sections or masses. Obedience from habit somewhat sinks the individuality of the man, but provided it does not destroy it, little harm is done. The individuality will soon assert itself when occasion arises to put it into force. Men will readily grow into the *habit* of obedience if they are not frequently and unnecessarily irritated. With a large staff controlled for some length of time by one chief, there will grow up a kind of diffused and invisible essence of obedience, so to speak, inculcated through the men, like a belief or public opinion. A new man coming on the staff will at once feel this, and he becomes influenced by it, and it is an outcome of the sensorium of the community, which the new-comer will be likely to

accept and imitate. If, however, he be a wilful man and resists this disciplinary influence, then a contest will ensue between him and the chief, and the subjugation of the former will bring renewed stability to the discipline of the staff.

Subordinates seem to think that rules are for the individual advantage of the directors and principal officers who make them, and not in the interest of the efficient conduct of the work. Subordinates will display great interest in obedience to rules designed to support a literary society, a cricket or tennis club, a friendly society or such like. This is because they know that obedience to the rules brings advantage to the members and success to the society or club. It would be well if the same interest were felt by all in the rules to benefit the company's business, especially considering that out of the company's business comes the livelihood of the employees. It should be fully realised that the chastisement of an offender in either case is in the interest of the majority. If men would only use the same ingenuity to obey rules which too often they devise to evade them and escape detection, much unnecessary trouble would be saved. It is far easier to follow a beaten track up a mountain than prospect a new bee line.

Breaches of rules arise from slight aberrations of the mind, from ignorance arising from insufficient training, from active resistance to all authority, consequent upon vanity and conceit, which abhors restraint, and from excitement produced by unjust or imagined unjust treatment.

Rules become necessary to train many men to act in a body, simply because every man does not know the right thing necessary to be done at the particular time. Thus, in a sense, rules are the outcome of inefficiency. The higher the training the smaller the number of rules necessary, while the lower the training the greater must be the number of rules.

An agent must ever keep alive in his mind the principle that his right to enforce obedience is founded upon his position and that the right belongs to the position. That he is exercising the right only in virtue of his office and for a purpose outside any whims incidental to his individuality. An agent has himself to yield obedience, and he in turn must remember that he only exacts it as a link in the chain that keeps together the organisation as a whole.

Obedience is obtained by force of individual will-power. There must be no man on a staff who cannot or will not bend his will to enable him to yield obedience to his superior officers. Persistent disobedience invariably brings dismissal. However weak an agent may be in character, he must at times and under provocation make some show of claiming obedience from his staff. A weak agent will get rid of men who are too strong for his control, and often thereby he loses valuable material for want of the will-power to control it. A weak agent after a time too frequently settles down with the goody-goody type of men, somewhat milk-and-water, but quiet, conscientious and plodding. Like agent like men, the weaker the one the weaker the other. It takes a strong hand to control wild spirits,

but men sensitive and difficult of control often possess more character, more brilliancy, more talent, and form a better team, *but* they must be made obedient to get the results out of them.

An agent must watch his men carefully, and if they deviate from the beaten track or show disobedience, trip them up at once, and after admonition, give them a new start. Thus, over a time, the staff will by degrees understand that nothing but correction is gained by slipping. This makes them more cautious, and if they are only allowed, when in the right path, to move peacefully, they soon become sensible that in following it they obtain the most comfort. An agent thus allows habit to grow, and the men become drawn into the right course. When men are expected to be on duty an agent should visit them at uncertain hours, and when they least expect him he should be at their sides, but still he should not play the spy. That is detestable, but vigilant inspection is legitimate when men are expected to be on duty. An agent should then watch his men narrowly, but avoid espionage. Night watchmen especially, should labour under the belief their agent is a most uncertain being, and that if they were to have a dose for five minutes he might chance to come at that particular time and catch them.

It is by obedience that soldiers are trained to charge into the jaws of death; and in like manner a jesuit father is taught to forget father and mother, sister and brother, and, at the word of command, start at a moment's notice to the furthest ends of the earth in fulfilment of his vow of obedience. Equal perfection may be easily attained in regulating a station by similar discipline and obedience. In the one case, discipline is exercised to cause men to confront both danger and privation, while in the other, it is employed to obtain obedience in the performance of peaceful and praiseworthy duties. Obedience must be enforced to keep up efficiency at a station, and if an agent does not establish it, so as to uphold right, he permits wrong to increase and go unpunished.

When a man is at his post he should have a certain defined duty to perform in a recognised and proper manner. If he is unwell and unfit to perform that duty an agent should send him home, but while men are fit for their work they should be kept closely to it. An agent should not make men feel he is exacting too much, but simply that as a matter of fact he will have the work done, and that it is expedient on their part to do it if they would avoid unpleasantness. Obedience is necessary to carry out discipline, and discipline is necessary to maintain obedience. Obedience is gained by fear and respect, and lost by a deficiency of firmness and moral courage—by a want of detail knowledge of the business—by undue familiarity—by disreputable conduct, or anything that by lowering the superior officer in the estimation of his staff creates disrespect. Submission to a leader is given tacitly upon the belief that the leader is able to lead, and on that account is a superior kind of man; hence an approximation to superior attainments is indispensable to successfully lead men. An agent by continually drilling his men in the right thing to do will gradually make them obedient and efficient. If an agent

aims at success it must be his continual study to be a disciplinarian, and to obtain by tact and force of character implicit obedience from all. By being a disciplinarian it does not necessarily mean that he should be a continual growler, as is often the case with strict military disciplinarians. Fault may be found incessantly if there be real ground, but it can be done without a display of temper. It is the unnecessary introduction of temper into the correction of men that should be avoided. Few agents are consistent disciplinarians though many flatter themselves they are, while others having in earlier days suffered abuse from superiors, think it a fair exchange to give to others the same kind of abuse that was formerly dealt out to them. The course of training through which a railway clerk passes before he becomes an agent does not always contribute to make him a disciplinarian. We must discipline our own conduct before we are well qualified to enforce discipline with others. The object of discipline is to produce obedience, and without obedience there can be no efficient organisation. Where willing obedience is given the necessity for discipline is reduced to a minimum, or to just sufficient to sustain continued obedience. When an agent is sure of obtaining obedience he can place trust and not before. Obedience is yielded by different men from different mental promptings. Sometimes from fear of punishment, or from hope of reward, or from personal respect and admiration, or a conscientious desire to perform the allotted work. The ultimatum to enforce obedience must be fear of punishment. With some men it is better to try punishment in the first instance of fault, and when the first cause arises, and then it may never be required with the same man afterwards. The erring ways of man compel its adoption at times, but an agent should be considerate to such an extent, that in a general way he never resorts to this ultimatum until indispensable. Too much "stick" with schoolboys hardens and deadens feeling, and thus the ultimatum used as a deterrent may, from too frequent use, breed contempt. Therefore, to speak figuratively, avoid too much "stick." Let an agent incite men to perform their allotted duties efficiently by making them understand it to be their interest. An agent should cultivate an inclination to volunteer action. It should be understood among the men that it is the agent's wish they should show a willing spirit, and perform their duties so that "angry words" may never be heard. Treat them kindly and considerately in illustration thereof. Encourage their exertions and strive to win their confidence, bearing in mind that "like produces like." In this way you may gain respect and obtain that kind of action that produces work done with a "will," a kind of work which we all know is far better than work obtained by exaction.

All the men an agent can manage in a mild way it is most desirable to do so, but at the same time he should introduce the conviction into their minds that he only follows this temperate course while they evince the will to do the right thing. When an agent has reason to believe the will to do right has lapsed, nothing wrong a man may do should pass unnoticed or uncommented upon. An agent should exercise all his ingenuity to bring round the offender by

investigating his character and doings, and operating upon him wherever he may be vulnerable to pressure. Let him be reclaimed if possible by moderate means, but if moderate measures are insufficient then use the strongest that ingenuity can devise short of persecution. We are assuming that the agent is in the right, and therefore in such a case he must keep the upper hand even if ultimately the man is discharged. The rest of the staff will closely watch the contest, and if the agent permits his authority to be set at naught, it diminishes from that moment. *Discipline must be kept up*, but it should be done wisely. While men know they will be chastised for wilfully or carelessly doing wrong, they feel that correction is held over their heads, and they then fear to err. While a man's manner denotes he feels this, an agent should treat him gently and encourage him, because it is this feeling that will help to keep a man right, and he may then be led on to respect his agent. When a man gives in and bids for peace and quietness, if he is not met half-way he will conceive the idea that he is persecuted, and that retaliation is his only resource. But many a poor fellow, deficient in spirit or pressed down by the responsibilities of a large family, has been ground down to degrading submission by tyrannical agents, though usually agents suffer for such conduct.

Vacillation is an unfortunate trait of character in a business man. What trust can a manager repose in an agent if he finds him yielding to difficulties, changeable, failing to carry out instructions, and deficient in common sense. If an agent issues instructions to his men and then almost immediately countermands them, how unreliable and devoid of judgment his actions will appear in their eyes. What an absence of firmness and constancy he displays when he issues instructions and fails to enforce them. Some men are ever ready to neglect that which gives them work or trouble, and when they find an agent has not the persistence to make them carry out directions, his authority is lessened, while disrespect and inattention to his orders are sure to follow. For this condition of things an agent has no one to blame but himself. Let him give his orders and insist upon their execution, yet take due time to consider beforehand that what he contemplates ordering is really necessary, and there will be no occasion to countermand such orders until the object sought has been attained.

REWARDS AND THE HOPE OF REWARD.—This in other words means a desire for advancement, power, and success. Emulation is excited from motives of ambition. It is a feeling lasting up to the time an individual finds, either from old age or repeated failures, it is useless to hope any longer. The young man is sometimes told he is too young to occupy the coveted post, and the man of advanced years, that he is too old. Thus the one and the other, from a kindly feeling, is let down gently. Assuming a fair state of health and that the ability and energy is really in a man, then age has very little to say to the matter. The greatest difficulty in business life is to make those in high positions, above an agent or clerk, realise and believe in his capacity and fitness for advancement. Tact does it, to-dayism some-

times does it, and persistent length of service also does it. Sheer impudence and self-assertion has also helped some men to display small talents and rise. The middle men in power, however, often block the way and keep an ambitious young fellow from making his mark. All men cannot possibly rise in railway service, and the majority, necessarily, must be contented with subordinate positions. It should, however, always be the elevation of the fittest; and if the fittest were always those selected, then the unsuccessful would be more reconciled to remain hewers of wood and drawers of water. Men, like buffaloes, are gregarious, and the former move and work in sets and communities. Getting into a good groove, often means being associating with a good set, and men are accepted into a set either from their submissiveness or their superior ability. The set works for and accomplishes something esteemed to be great and good, and the members of the set, as a consequence, share, by advancement, in the general success. On American railways at least, this is very pronounced, for on most of the lines there may be found distinct parties, each advocating a particular line of policy, like parliamentary parties; and those who attain the chief control of a railway, promote their own party, and push the others to the wall.

It is an undoubted fact that self-confidence in a man persistently presented to the minds of other men, inculcates a belief in their minds that the persistent individual has something in him. He may have but little real ability, yet that little, by his pushing self-confidence is made to shine resplendently and carry conviction. It is made to impress others. If an agent or clerk cannot impress his fellow men and superiors with his capacity, it matters not how much ability he may possess, it all goes for naught. If people see plenty of smoke they believe there is fire somewhere.

There are two distinctive leading kinds of men common in life—(1), those who can deal with facts; (2), those who can deal with their fellow men and impress them. The capacity to do both is, however, to be found combined in some men, and there are many such. But again, it frequently happens that some men can cleverly deal with facts while they cannot diplomatisise with their fellow men. These are commonly classed as men of ability but deficient in tact. Then it frequently occurs that some men are full of diplomacy and tact, but fail when dealing with facts, yet their tact comes forward so prominently that their deficiency in grasping matters of fact is unobserved, and they pass for clever men, because they can impress, manage, and influence their fellow men.

To seek a reward by doing something better than the average run of other men is to excel. Excellence, however, is only a comparative term, for even among slaves there will be one or two more excellent than the others. Hence the true criterion is *that* standard of excellency which takes a wide comparison. We have often been told by men, "well I have done my best," and then they have put on a contented air. We have at once replied, "when your best does not come up to the given standard required for the work, you must improve *your best*." "The standard cannot be lowered to accommodate *your best*."

The hope of reward particularly encourages the younger men who are in the course of working up to their attainable standard, and doubtless it inspires them during that time. The longer their advance goes on uninterruptedly, the longer the feeling lasts and quickens fresh exertions. The impulse to excel should not arise simply to gain admiration, but to *produce* something deserving of admiration.

Unfortunately, in the railway service, there are too few rewards to continuously excite the energy and emulation of the many thousands of persons employed. The employment is based upon a contract providing that certain services are to be given in a satisfactory manner for a fixed remuneration. While the contracting parties, that is, the company and the agent or clerk are satisfied with each other, the contract continues. As a matter of fact, the men likely in time to be successful and obtain leading positions are comparatively limited in number, and the staff generally are well aware of this. Thus, for the thousands employed in the service, there is little to be expected beyond the fixed contract, the rewards in anticipation being limited to some periodical advances of salary, over perhaps, many years service. Consequently, after the salaries of one hundred pounds, one hundred and fifty pounds, and two hundred pounds a year have been attained, the chance of further reward becomes narrowed, and the struggle is often, how not to retrograde as age comes on, rather than how to obtain further advancement. As years roll on, men of the middle grade get into fixed positions, become almost stationary, with but little further hope of reward, and, as a consequence, their energy, earnestness, and push dwindles down to a minimum. Provided they perform their part of the contract, up to a certain point of efficiency, they will retain their employment, but they know well there is nothing further to expect beyond the stipulated contract pay. Thus, there are a very large number of cases throughout the enormous ramifications of the railway system, where, in the hearts of the middle-aged men, the incentive of a hope of further reward has expired. This is a weakness in the organisation, and more efficiency would be developed if some scheme could be devised to distribute to the middle-aged men, yearly prizes or rewards so as to correct this state of things. There are hundreds of married middle-aged station agents over the country, who have reached their maximum of promotion and pay. Having no further reward to expect they are the more liable to "rust" rather than "rub." It would be inexpedient in most of such cases to continue granting yearly advances, as in a few years the equality of pay would thus be disarranged when contrasting the extent of work with the responsibility. Length of service with limited responsibility should not lead to one official obtaining a higher pay than might be given to another official with more arduous duties through shorter service.

Pickford & Company during the old carriers time, and we believe up to the present, give their men christmas boxes of five pounds, ten pounds, and so on, according to position. These are good conduct gifts; and when an agent or clerk receives no such gift he may assume that his efforts have not been successful. The French railway companies do the same kind of thing in the form of yearly premiums

for special good conduct. We think rewards of this kind skilfully distributed would do great good, both among station agents, goods clerks, booking clerks, parcel clerks, foremen and others. This is not the occasion to propose a scheme, but it would be easy to classify the different grades of the service and fix premiums or prizes in accordance with good conduct, economical working, efficiency, absence of mistakes and regular attendance.

We have been informed that the Northern Railway of France in the year 1882, distributed three hundred and twenty-two thousand francs, or say thirteen thousand four hundred and sixteen pounds, to one thousand seven hundred and thirty-nine employees who were station masters, clerks, inspectors, foremen and porters. The allowance granted is generally equal to a month's pay. It would appear some of this money was granted in cases of accidents and sickness, so that it cannot all be taken to consist entirely of premiums or gratuities for good conduct.

Upon some English railways, the signalmen are given an annual good conduct bonus of five pounds to first class signalmen and three pounds to second class signalmen. This bonus, however, is withheld for the year if a signalman has committed any serious fault for which he may have been fined.

REPRIMANDS AND CHIDING.—Admonishing may be done privately or before witnesses, and it much depends upon the strength of the censure deemed necessary as to which way it should be inflicted. Where the superior has a fine sensitive nature himself, he will quickly discern among his staff those of a similar nature, and admonish them privately; whereas, if the superior be a man of coarse, rough manners, he will blurt out before witnesses his censures upon all indiscriminately, both in and out of season. Censure, although a lesser kind of punishment, is often with a good staff the only punishment necessary. If men frequently require more than censure to keep them right, they may be classed as refractory, and the sooner they are got rid of the better. If the superior has a fluent vocabulary of words, his censures, when in point, will be dreaded far more than fines or even suspension. Words of righteous anger from some persons can be made very telling, and yet without any display of passion. It is the absence of passion in administering rebukes that intensifies their force—it is the publication of censure, and the holding of the culprit up to condemnation before his fellows that galls. This is certainly necessary at times in particular cases, and no milk-and-water sentimentality should prevent it being done. Here is where the wisdom or foolishness of the superior comes into play. So many men lack "moral courage" where they ought to display it, and they let the occasion pass without the rebuke being administered, and, as a consequence, discipline is proportionately weakened. It is when little crises arise that "moral courage" helps the superior so much to read suitable lessons and strengthen the discipline.

With some men censures couched in words, however sharp and stinging, have no effect at all—you might as well censure the wind for

blowing. They are so thoroughly hardened that they laugh in their sleeves at any attempt to excite feeling in them by words of censure. It seems to them rather a joke to listen to their superior officer "blowing off," and they pity themselves as being compulsory victims of his effervescence of temper. Men of this stamp are outside treatment by censure; their discipline can only be controlled by punishment.

A danger to be guarded against is not to "harden" sensitive men by censure before witnesses. Nothing does so much harm with a staff as unmerited blame, and nothing leads so much to harden them. Some over sensitive men, however, will get "hardened" under any discipline, even when it is pretty fair and just. The "hardening" condition of mind saps volunteerism, blunts conscience, breeds disrespect and excites rebellion. It is better, at least at first, to take an offender aside privately and try what a little good advice will do with him, and if this does not affect him in the desired way, then he must expect to be censured before others.

COMPETITION.—This is a great lever with a staff in keeping up the spirit of emulation among the men. Each man or clerk by competition is forced to compare his efforts with the rest of his fellow employees, and the superiority of one or two individuals will shame the others into greater efforts and better work. If a good standard of work is to be kept up there must be interspersed among the medium fair and persistently bad men, some few superior hands to generate competition. Competition makes the affairs of the world go on, and plays an equally important part in the discipline of a railway staff. In India we found it a common practice to mix together Parsees, Mahomedans and Hindoos in railway offices so as to incite competition one with the other. If an office of clerks were made up of only one set of each race, equally satisfactory results could not be expected. Judicious mixing of different kinds of men proves best to excite competition. We think in England a percentage of Scotch and Irish men are good—in Scotland a percentage of English and Irishmen—and in Ireland a percentage of English and Scotchmen. Competition is in some degree kept alive by individual envy, though it should not be envy of a despicable kind but rather of an emulative kind, which may be both legitimate and praiseworthy. The envy of excellence striven for under the influence of competition is different from covetousness. The vanity of men and clerks is often hurt when they are distanced by an individual whom perhaps in a general way they despise. Thus it is often found that increased power is brought out and stricken vanity develops good results in particular individuals. Without the spur of competition among a staff, the tendency is for things to remain on a dead level or to degenerate.

FEAR OF PUNISHMENT.—There is both bodily fear and a fear of material consequences. Bodily fear, which is a fear of suffering and pain, we have nothing to do with here. The other kind of fear is apprehension as to losses of money, goods, reputation, or a livelihood. While there are more persons available and willing to labour than can

procure work, the loss of employment becomes a serious punishment. It is through a fear of the loss of employment that business discipline is chiefly enforced. In the railway service there are minor punishments, such as reduction in position and salary, fines, removal to different offices or lonely stations, allotment of duties where the hours are extra long or where the work has to be done during the night time or early morning. Punishment affects different persons in different ways. With some persons it crushes and takes all the spirit out of them, with others it excites and irritates their nervous systems and speech, and again with others it produces deep implacable anger, indifference and yearning for revenge. This latter feeling is, in a general way, the effect upon most persons, when the punishment is really unjust, unmerited and spiteful.

The infliction of a penalty must, however, mark all offences of a serious kind, calculated to weaken discipline. Whatever consequences may arise by subsequent retaliation on the part of the offender, should not be a matter for consideration. Whether the offender be brought to a sense of his wrong-doing is really of less importance than to convince the rest of the staff that such acts cannot be done with impunity and pass without punishment. Punishments in cold blood, as it were, that is, taking effect some long time after the offence, are objectionable, because, from the delay, they have a less deterrent action. Let the punishment be as quickly as possible after the offence, so that it may become known throughout the staff, at the one time with the offence; that is, that the offence and the punishment may be nearly *pari passu*. The matter will then be ended, needless contention cut short, and much recrimination avoided.

The right measure of punishment is as much and no more than will make an impression upon the particular individual who may have offended. An excess of punishment, in addition to its being cruel, is a waste of force, for you may easily exhaust your armoury in case that further and additional punishment becomes necessary with the same individual. Economise the use of punishments, so that you may not run short of expedients if it be necessary to pile on something heavier to crush out insubordination. Begin easy and mend your hand, as may be necessary, and by degrees your staff will get to understand there are heavy guns in reserve that may, if necessary, be called into action, and hence they will the more likely "come to" on the first discharge of small shot. It is the continual dropping water upon the stone that wears the hole.

There can be no doubt but that too frequent or excessive punishment is bad, and that it defeats the object it is intended to remedy. Fear in some individuals quite prostrates the intellect and then the brain refuses to work, because a condition of bodily fear is engendered. By constant fear persons become cunning, suspicious, illogical and mean-spirited. They are continually in dread of being put under pressure, and the fear of suffering drives them into lying, duplicity and evasion.

In the infliction of punishment great care should be taken to individualise between the offence and the offender. It is the offence

that is punished rather than the individual. While an agent keeps strictly to the offence, the danger of appearing to persecute an individual is lessened. When a man continually offends, there is a greater tendency to deal with him as an individual from his being a frequent offender, instead of adhering strictly to the offence. He, however, is not punished because he is a frequent offender, but he is punished each time for the particular offence last committed. The frequency of fault may lead to heavier punishment, but still it is the offence rather than the offender an agent should bear in mind.

A true estimate of the degree in which a man may be in fault is very difficult to fix. To ascertain this means closely investigating all the facts which often involves an expenditure of much time. The investigation cannot however be done unless all the men concerned in the matter are brought together, face to face and catechised. Railway men of any length of service acquire an aptitude to present evidence in a very legal form, to exculpate themselves from blame and likewise to suppress evidence likely to convict them of error. These *ex parte* statements afford little evidence as to the truth of the case under inquiry, because the facts that are likely to fix the blame are often artistically obscured or suppressed. Thus it is only by having all the persons concerned face to face and bent on their own self-exculpation that the true degree of blame can be estimated. These investigations do great good and prove a great check upon falsehood. When it is man against man face to face, lying will not carry the day, and such a disguise is soon torn off. As the men become convinced there is a means of getting at the truth, and such means will be used, they acquire the habit of at once owning to their faults; thus much trouble and time is saved, the degree of fault is accurately estimated, and punishment, when necessary, is fairly meted out.

PUBLIC OPINION.—This heading is intended to embrace only the opinion of the staff and not that of the general public. Public opinion and public reputation are closely akin, and too much importance cannot be attached to this feature of discipline. A bad public opinion by the staff condemnatory of the acts of an agent gives rise to many difficulties, lowers the discipline, and often results in continual warfare between the two. Public opinion is the outcome of the criticism of the agent's acts by his staff. All depends upon the estimation the members of the staff put upon the agent's ability and fairness, which, when aggregated, becomes the current public opinion entertained of the man. Public opinion takes some time to form, seeing that it arises out of current comments upon the agent's doings over an uncertain period of time. When public opinion once takes root in men's minds either for good or bad, it acquires a permanency difficult to alter. Every new hand joining the staff hears what the public opinion is of the agent, and shapes his conduct accordingly. Public opinion is intimately mixed up with sympathy. Sympathy with a man makes persons condone his objectional acts and extol his creditable ones. Public opinion is widened and extended by the action of

sympathy, and individuals are influenced by the views generally accepted in their own set.

Public opinion is not confined to the agent as an individual, for it also relates to the conduct of the work, the efficiency of this or that office and section of work, likewise to the acts of clerks and others who occupy minor posts of authority. Public opinion is near akin to "credit." Whatever is done creditably excites admiration and continued admiration over a long period of the acts of one person by many persons, creates a favourable public opinion as to that particular person. The same thing takes place when the acts done are manifestly bad, silly or indiscreet, but then the public opinion is condemnatory.

It should be the business of an agent to create a healthy public opinion among his staff both towards himself and towards all who act in authority under him. In the matter of credit, the staff and the agent should realise that they are jointly and selfishly interested. The staff can help by their good conduct and publicly expressed good opinion, to largely increase the reputation of the agent, while the agent's good management brings credit to the station, and the staff by sharing in that credit, become more highly esteemed. A clerk known to have served for several years at a station of good repute is at once accepted as a man likely to be experienced and clever in his business. The credit attached to the station follows and recommends him.

But public opinion like everything else has an evil side, and that is when an agent has a morbid and unhealthy craving for popularity. This springs from egregious vanity and a sacrifice of all other considerations, provided popularity is attained. These are the agents who like to be toadied, praised and applauded. They are impersonations of vanity run mad. This unhappy natural weakness which many men really cannot help, illustrates the "play off" of their characters. So strong is this feeling with many persons that they will bend everything in life they possibly can to win praise, and it matters not *who* offers adulation so that it is provided. The smallest donations are thankfully accepted, and as it were they knock at a man's door and ask for praise. It is an unfortunate weakness expanding, and expanding the more it is fed, as the ripples in a pool when the even surface of the water has been broken by a pebble. It would almost seem as if the unfortunate men were possessed by evil spirits that would give them no rest.

A fair average love of praise, however, is necessary to make a person courteous, civil and painstaking; but the excess leading to a craving for popularity at any price, rapidly saps discipline and leaves a station agent despised by his staff.

To win the confidence of men an agent must be reasonably good-natured. Hard words and actions must at times be resorted to, to keep up discipline and train subordinates; yet an agent may be considerate and not make them harder than is necessary to gain the desired end. Should an agent be thoughtless of the feelings of others, can he expect them to be considerate for him and his employer's interests. When it is necessary to censure a man an agent should correct him in

just that proportion with which he believes from his knowledge of the man that such man's nature will be impressed.

It is not considerate to give a timid and sensitive man the same catechising and reproving which would be bestowed on one who is half inclined to persist in the error of his ways. Very willing and attentive men at times want checking to keep them so; but this should be done in a quiet reasoning way, and with a kindly spirit. Some subordinates, it is true, have little consideration for an agent as to how they annoy or trouble him, or by their bad work bring discredit upon the station. Men of this kind should be dealt with sharply until they have been thoroughly impressed. If after some fault they escape being dismissed, do not for some time relax the strength of the measures that have subdued them. If they mend their ways then an agent may moderate his severity by degrees. An agent should foster the feeling that he wishes to trust them provided they will evince conduct that will warrant mild treatment. Let them know this and that the initiative to inaugurate peace rests with themselves in accordance with the way they act. An agent should not exult in triumph over a subdued man or the man will be likely to feel himself forced back into a state of resistance, either overt or covert. An agent should avoid standing in the way of men's promotion if they have given him one or two years' good service. It is unpleasant to lose a trained hand, but it is better to let him go than keep him dissatisfied with a sense of a grievance gnawing into his mind.

Some agents put on rather too much "side" with their men, and unfortunately it is somewhat of a railway weakness with many men who have worked up in the service. Arrogance and haughtiness are the outcome of vanity and snobbishness, which sits badly on officials of public companies. The consequential strut or swagger, the aping of the aristocratic drawl, the loud intonation of voice, and the "tall talk" only produce laughter. Such conduct quickens the perception of subordinates to descry and publish the foibles of their superior officer. It is human nature to be particular in bringing forward the faults of him who hourly prides himself upon his superiority. While excessive self-esteem is intolerable, a due proportion is both valuable and necessary, when not exhibited ridiculously. An agent requires sufficient *amour propre* to give him the necessary elevation over his staff, and to teach him to keep his place, and prevent him committing mean and petty actions. Without enough self-confidence to keep him up to his official position during business hours, an agent cannot properly dictate to his staff, and becomes a mere cipher in the eyes of those who should look to him as their guide.

An agent requires nerve to command and impress those under him who are rebellious, and who by actions and manner evince a careless indifference of authority. Force such men into their routine duties, by defining, in writing, every small detail they are required to do. An agent newly taking charge of a station has his nerve-power gradually tested by the staff, not alone to see whether he is devoid of pluck, as to ascertain how strong he is in character, and what and how much he will bear, and hence how far they can go. If an agent

feels himself strange to the new duties, and is too free in seeking suggestions and advice from his men, they will be likely to presume, acquiring the belief that he is too nervous to command. An agent should have nerve to convict and punish a subordinate when a false statement is given to hide a fault, or false statements will increase and multiply. Let an agent have the nerve to doubt a man if there are sufficient grounds, and to tell him so bluntly, regardless what front the man shows, or how gentlemanly or refined he assumes to be. Nothing will so quickly disorganise the staff of a station, as a belief that the agent is too timid to command. If any of the staff seek to please the agent by praiseworthy conduct, let him respond to it by expressing satisfaction.

In training clerks, the careless errors they make are the most vexatious with which an agent has to deal. If anything will make a reasonable man enraged, it is a careless, wilful, slovenly clerk—a man who neither fears nor respects, but who in his manner bids you to do your worst with him. To lose temper with such a man is a wasteful expenditure of physical force, and to talk to him is a waste of time and breath. His misdeeds should be put before him in writing, and written notice given him how he must mend his ways, or otherwise that his dismissal will be recommended. If he still persists, the first clear case against him should be sent to the proper quarter with remarks on his general character, and a copy of the written notice previously given him. This will cause him to be either severely reprimanded or dismissed. By treating careless men strictly and firmly, and constantly checking them, they can be generally reformed. Most men can be made sensible of their persistent wilfulness, the difficulty usually is in devising the best and quickest means. If an agent is careless in the discipline of his staff, he is certain ultimately to get himself dismissed.

In respect however to carelessness, an agent should particularly guard against forming an erroneous judgment between a casual error and a careless error. If an agent too frequently censures and upbraids men for committing trivial and casual errors, he weakens the impression which his corrections ought to have upon the staff. This is a kind of mistake into which peevish agents often fall, thinking no attention will be paid to their orders unless they bluster and put themselves into a passion. This continually done produces the contempt of subordinates, who, after a time do not think an agent is in earnest unless he storms. It leads also to incessant strife, dissension and wrangling, which tends to the discomfort and deterioration of willing, striving men. Correction and reproof when applied deservingly, and in a cool severe temper have a good result; but passion and hard words produce only sullen, dogged obedience, and destroy willingness and respect.

Some agents are fond of complaining and writing to their manager about trifling offences committed by their men in respect of errors or irregularities. This with a reflecting manager tells to the disadvantage of an agent, as it implies that *he cannot manage his staff*. It should be a rule adopted by an agent and understood by his men,

that he never reports a man until he intends him to be discharged; and this of course he should not attempt unless things have become so bad that there is no other resource. When an agent does report a man he should have such a truthful case to make out as will insure the man's dismissal. It is best in flagrant cases instantly to suspend a man and send him off the station. Nothing helps an agent to hold the helm with force more than quick decided punishment inflicted on wrong doers. The suddenness of this retribution terrifies the waverers and sympathisers, who may be indolent and anxious to overturn discipline because its restrictions annoy them. An agent should never appeal to his manager if he is able and empowered to deal with the matter himself, but if he does make the appeal let him formulate a clear case. Reporting trivial offences is foolish, because an agent troubles his manager and asks him to correct trifles which it is the agent's own province to put right. In consequence of such reports, a manager, perhaps from a misconception of the case, or perhaps with a view to keep up discipline, may order the discharge of a man for a trifling fault, when the man really does not deserve it. An agent may thus bring upon himself the performance of an unjust action towards his subordinate, or he may, in a measure, have to contradict his report and palliate the man's conduct, and beg the withdrawal of his discharge. Thus an agent will have placed himself in a dilemma for not having dealt with that which was clearly within his own jurisdiction. If the man is discharged the agent incurs the odium of having done a harsh act, and if the agent excuses the man's fault to the manager, the agent, in the eyes of the manager, appears to have acted a foolish part. Men can generally be restrained by talking to them seriously, pointing out how their interests are promoted by doing right, as well as by holding up to view in stern language the consequences of their doing wrong. Does a man like the business? Does he wish to get promoted and have his salary increased? Let the agent point out by what kind of actions he neglects doing that which is most likely to realise his wishes. The great secret in working a station is the proper management and discipline of the men. To command depends upon natural ability, education and the way an agent carries himself.

Fines, except with single men who have only themselves to support, are objectionable, unless small in amount and only occasionally inflicted. Most men will take care not to be individually deprived of their wants, and, therefore, too often their wives and children will be the ones to feel the punishment. There is no punishment so effective as extra duty without pay, or the infliction of some dirty, disagreeable work for a few days. Extra work after hours is a sore punishment to most men, because it curbs their freedom and prevents them going home when the other men leave. It impresses them far more than a fine. About a large station there is always some kind of work that is held to be particularly heavy and disagreeable, therefore set evil doers about work of this description as a punishment, and if they will not submit to it or amend their conduct, get rid of them.

When a porter is found to be drunk on duty for the first time,

and the case is not too flagrant, an agent can suspend him for one or two days, and put a man on in his place. If the man desires to keep his situation he will seek forgiveness, but do not grant this at once. Let him journey up to the station once or twice a day, and let the agent send him away with the reply that time will be taken to consider whether or not he will be reported to the manager. After having been kept in suspense for a day or two, if, on the whole, he has been a good man, the agent may express a disposition to yield forgiveness on his faithfully promising never to get drunk on duty again, and upon his taking the pledge. The only difficulty then is the payment of the extra man who has done his work during the suspension, and which cannot be paid without explaining at headquarters the reason the extra man became necessary. If the delinquent offers to pay the extra man, the matter can be settled; but, under any circumstances, it would be no punishment to a man when suspended to walk about in idleness and still receive his wages. The cost of the extra man, together with the anxiety of mind involved, is sufficient to punish a man for the first or second offence of the kind. In many cases men may thus be stopped from repeating their drunken fits, and others deterred. If a man disregards these cautions, and persists in getting drunk, an agent should report him to the manager, mentioning the previous offences, and ask for his dismissal.

We have often adopted the plan of sending for a man's wife when her husband's conduct has become so bad as to bring him to the verge of dismissal. We have reformed many men addicted to liquor in this way—the wife fearing her husband's dismissal watches him at home, and thus the united action of the agent and the wife often proves a check upon the offender, and strengthens his weakness of character. Many good working men wanting in firmness, are easily led astray by bad male companions. If they can be induced to give up their bad male companions and associate more with their wives and children at home, the love of drink may be gradually overcome or at least very much decreased.

One of the greatest failings of which an agent can be guilty, is to make unduly free with any member of his staff. He should keep each man at a respectful distance during business hours, and never lower himself from his position of the chief of the station. When he mixes with his staff with undue familiarity or has idle talk with them, he puts himself on an equal footing and his control is liable to be lost.

To uphold discipline and keep men right an agent must keep himself somewhat exclusive, so that his men may feel he is their chief, and claims that respect and obedience which is evinced by the regular performance of their duties. An agent should avoid being "stuck up" or pompous, but simply keep his position, for undue familiarities when permitted lessen an agent's control. If an agent claps a clerk on the shoulder and takes him out of the office that the two may get a glass of ale together, they become boon companions, and then an agent cannot expect that that man afterwards will take much notice if censured for allowing his work to go behind or for otherwise doing wrong.

Although officially higher, it must be remembered that an agent may not be a superior man to all of those under him, some of whom may indeed be far superior in knowledge and education. An agent may often learn much from his staff if he goes the right way to win confidence and draw knowledge forth, without lowering his position by doing so. It requires tact to elicit and acquire facts from persons with whom an agent comes in contact. An agent should abstain from domineering over or treating arbitrarily those who are placed under him. He will not like it from his superiors and therefore he should do as he would be done by.

Some men's natural abilities combined with the advantage taken of favourable circumstances have raised them to positions far above many of their fellows; or, perhaps, particular abilities have enabled a man to excel in the calling he has chosen or fallen into. In either case a man is not warranted in being oppressive towards those officially under him who may be less gifted or less fortunate. When an agent of nervous, anxious temperament and desiring to carry business on correctly has to deal with stupid people he is often very much provoked, yet reasonable forbearance is due towards them and it is not considerate or right to swear at or upbraid them in coarse language. An agent who swears at his men lowers himself and manifests a great disregard for the feelings of others.

He should also curb the practice of cursing and swearing prevalent among porters, carters, shunters and guards, pointing out the absurdity of the idea that it produces accelerated action.

"From a common custom of swearing men easily slide into perjury; therefore if thou wouldst not be perjured do not use to swear."—*Hieroclea*.

"Though you would seek to unsphere the stars with oaths."—*Winter's Tale*, act 1, scene 2.

How, for instance, would an agent approve of his manager swearing at him? It often happens, however, that those men who are most sensitive of the treatment they themselves receive and of their own independence are the least considerate of the feelings of other men.

Let an agent make the best he can of the men appointed under him to perform the work. He cannot expect all his men to be good hands ready trained, therefore he must trust more to his office checks and his own exertions to keep them right, than to their individual qualifications. It is a far greater test of ability to work well with indifferent men than with those of superior qualifications. An agent should *make* his own men, and he may think himself fortunate if, after he has made them, they are allowed to remain with him. He must not look for the aid of a staff of superior men to make his reputation. He should observe the gaps which the shortcomings of his men occasion, and put forward those he can depend upon to fill them, when unable to do so himself. It is a practice at some large stations to inculcate a system of espionage and injurious competition among the staff, so that each man is watching his neighbour, and endeavouring to find out and publish his deficiencies. This practice sets every one by the ears, gives rise to petty bickerings among all the men, and is base in prin-

ciple. It leads to the formation of cliques and parties among railway employees which have a very pernicious tendency. Everything should be done to unite a staff and infuse among the men a spirit of mutual co-operation. Let an agent bind them together in friendly bonds, and endeavour to unite them for pleasure and amusement, say cricket, quoiting, or chess clubs, or in libraries or discussion societies. He should prevent them continually trying spitefully to detect each other in faults, and to trip each other up from interested motives or revengeful feelings. A man who depreciates his neighbour, raises, as it were, an evil spirit, and lays himself open to be depreciated, by causing his neighbour to watch for an opportunity of retaliation.

If an agent cannot speak well of a man he had better hold his peace, unless peculiar and special circumstances command a candid statement. He need not gossip of another's shortcomings for he is not gratified when any one gossips of his. Where one clerk's duties are interfered with by the non-performance of some other duty due by another clerk, the first man neglects his employer's interests and his own self protection if he omits calling attention to the matter. Where the necessities of the service are at stake, error and guilt should be brought forward irrespective of making friends or foes, therefore with proper discretion show errors up.

Some railway men are unfortunately addicted to late hours and their usual accompaniments. It may happen at times they are driven to extremes in relaxation from the length of their hours of work. So long as a man's late hours or partiality for liquors do not interfere with his business, an agent has no cause to complain, although he may advise. Few constitutions, however, stand a tax of this kind for long without its telling through the health upon a man's daily exertions. If an agent sees a man falling short in his exertions and losing himself from bad habits, then let the agent remonstrate with him and point out the ill effects that must result. The man should be made to understand that the course he is pursuing will cause him to neglect his duties, or at least perform them indifferently; and that if such be the result, he must feel that the agent cannot avoid noticing it and punishing him in justice to others who are striving to do their duty faithfully. Where an agent is sure and has evidence that absence from duty results from improper excesses a man deserves to have his pay stopped.

Franklin's proverb that "time is gold" is not taken to heart by railway men, because they are paid for a certain time, and to a great extent they can put off duties without affecting their pockets; whereas Franklin, working as a printer, was paid only when he had produced certain work, therefore the time he chanced to waste prevented him producing that for which he obtained money; but some railway men waste their time, which has to be paid for in gold and silver by their employers. Many agents, clerks and others are fond of gossiping and holding arguments during business hours, or spending time in reading newspapers. With lazy people time is wasted in a variety of ways. An agent will sometimes go into the town on the plea to collect a few petty accounts, although, in fact, it

is often merely to exercise his limbs, or to amuse himself. During this time, perhaps, important correspondence is waiting. Porters' cash can frequently be collected by some one who, on going to dinner, passes the place of business of the person owing it. But it is intolerable that a man should take three hours to his dinner because he has to call at a shop where he will be detained ten or fifteen minutes. When an agent goes out of the office collecting in the town there is no knowing when he can get back: one man calls him into his office to ask some trifling question, then he meets a friend, and perhaps goes with him, or he may then be detained while some trader is engaged, and in these ways much valuable time is lost. Have no porters' amounts to collect, and collect ledger accounts quickly, advising traders beforehand that you will call on a certain day. Time is often lost coming late of a morning, and frequently when an agent has completed a piece of work at half-past twelve, and dinner is at one, he is reluctant to commence anything more before dinner, and so there is a waste of half-an-hour waiting for time. Time is wasted seeking for books that are not in their proper places, or that have no allotted places. Time is lost seeking men who are not at their posts. Time is lost in correcting the blunders of stupid people, perhaps contributed to, by a want of suitable organisation. Time is lost by an agent in doing trifling things that can be done equally well by a subordinate. Time wants just as much economising among railway servants as do general working expenses. Time is frequently lost with traders in not disposing of their cases quickly, when a number of arguments are sometimes entered into quite irrelevant to the question at issue. If troubled with a loquacious visitor the sooner he is got rid of in a polite way the better. An agent may mention how pressed he is to get the work done, to prevent working late at night, and if the visitor has any conscience or compassion he will take himself off. There are frequently many little details that by attention will save time. It often occurs that two men want an invoice book at the same hour and one consequently has to wait. If certain hours are fixed when each clerk shall have the book this may be avoided. Frequently time is lost when books or papers have to pass backwards and forwards between two or more offices; this should be prevented, and a general rule established, that the least possible time is wasted on all occasions.

An agent should keep three separate lists of returns required to be sent from his station to the different departments at headquarters. One list should be for daily returns, another for weekly, and the third for monthly and quarterly. The list should show the name of the return, the office or person to whom it is to be sent and the date due. It is a convenient plan to have these lists put into a good sized frame. Have the back of the frame made movable so that the written lists can easily be taken out for additions or alterations.

It is needful at certain unexpected times to call up in sections, all the staff who have been supplied with uniform, and hold an inspection of uniforms. Goods porters and others of the goods staff

have been known to lose, pawn and sell their uniforms. Some men, however, are too proud to wear uniform, but yet demand it because they consider it part of their allowance. They then think themselves entitled to sell or pawn the company's clothes if they substitute other clothes of their own for wear. Greatcoats are sometimes pawned in the summer when not required for use. Old uniforms with the company's buttons upon them are sold at old clothes shops, where poor working men purchase garments, and these men are afterwards seen walking about the town in the company's uniform. We know of a case where a man in a railway company's uniform and beastly drunk was dragged between two policemen along the streets to the police station. A railway director saw the transaction and afterwards called attention to the matter; upon inquiry it was found the man belonged to no railway service, but was a labouring man who had purchased an old uniform at an old clothes shop. Thus great exactness is necessary to make the men give up their old clothes, but if the clothes cannot be recovered, at least the uniform buttons should be obtained. Men will sometimes leave the service after getting their pay, and then take their uniform away with them. To check this a deposit of five shillings or ten shillings stopped at one shilling per week should be held in hand to the credit of each man on account of uniform, and be repaid to him when he may leave the service.

Every large station should be provided with a comfortable furnished porters' room, with an American or other suitable hot-plate stove, upon which the men can warm any coffee or food they may require to consume at the station. Many porters, from particular domestic arrangements, may have to reside a long distance from the station, and, consequently, must take their food at the station. If a comfortable room is not provided, the natural consequence is, the men during meal times go to the nearest public house. In spite of a comfortable room many men will prefer the public house, but it is desirable that the quiet sober men who would prefer the accommodation of a porters' room, should not be driven to the public house for the want of better accommodation. We do not object to a working man going to a respectable public house of an evening when he has done his work, but we do strongly object to public houses that are so frequently found opposite to railway stations being frequented three or four times a day by porters supposed to be on duty. The only way to stop this kind of vice is to put a trusty man on the street to take the number of every porter seen going into the "station" public house *during working hours*. Let the men have fair warning beforehand, and then if they still persist, and are detected going to the public house in working hours discharge two or three and the practice will soon cease with the others.

Either one of the porters in turn, or a porter's wife, living near, should keep the porters' room clean and orderly and attend to the fire.

An agent should keep an address book of all his clerks, foreman, and porters; if then a man is wanted before or after business hours, or a man is absent from sickness or otherwise, a messenger can be sent off to his house, either to require his attendance, or to inquire as to

his absence. These addresses should be revised every month or two, as men, particularly porters, are liable to change their lodgings.

Some clerks have a predilection to attend, of their accord, at the office on Sundays, to "pull up" their work. This we think very objectionable and it should not be allowed, for it encourages men to let their work run into arrear during the week, with the intention of overtaking it on the Sunday. Furthermore, it is not advisable for a clerk to be on duty alone, having the run of the offices on a Sunday; and it objectionably opens the door for a man to claim credit for working overtime, when such work was perfectly unnecessary.

An agent should see that all his foremen and porters belong to some provident or sick club. If there is no company's society, or if there is and it be not compulsory to belong to it, then urge the men to belong to some local town society or to the Oddfellows or Foresters. The sending round of the hat when accidents or sickness occurs is a very objectionable proceeding, and seldom produces more money than will meet the emergency of the hour. The most valuable form of insurance is the endowment policy, for it fills the place of a death fund and affords some substitute for superannuation. Many insurance offices, if they can issue a large number of policies for working men, will issue them for such small amounts as fifty pounds. The money is paid on the death of the man or upon his attaining a certain age, say fifty-five, sixty or sixty-five years. We have found many working men object to insure their lives because—(1), they don't expect to die soon; and (2), because the money will not benefit them personally. When a working man understands that by the endowment plan, he will get the fifty pounds himself at the age of sixty, he begins to see a personal gain, and will then often insure, because he fully expects to reach sixty years of age. If the man attains sixty, his children then have grown up and will be earning their living, and the fifty pounds comes to the man at old age in lieu of superannuation. During the interval while the children are young, the risk of the father's life will have been covered to the extent of fifty pounds.

ACCEPTANCE OF GOODS—OUTWARDS.

Appliances and accommodation of space to admit of goods being handled—the legal responsibility of accepting and making the contract of carriage—the actual acceptance and process of weighing—the process of sorting the goods and the clubbing of them together for each destination station—the process of checking and loading the goods into railway waggons, and the sheeting of the waggons—shipping from consignment notes—shipping from addresses on goods; also loading and checking from consignment notes—loading and checking from addresses on goods—shipping plans at Manchester, Birmingham, Paris, Yorkshire, Liverpool (two stations), London (three stations)—loading—empty waggons to examine—obtaining goods early to load—receipt of goods, sorting on platform—hand trucking to waggons, chocking at door of waggon—loading from heaps—heavy goods to go at bottom of waggon—kind of waggon for load—sailor to stow—number of packages in each waggon—loading slip—using plenty of straw—closing doors of waggons—economising waggons to foreign lines—fall for sheet—loading waggons at two ends only—overloading waggons—separating parts of consignment—unevenly loaded waggons as to weight—waggons with nuts and bolts exposed inside—scotching casks in waggons—crates of glass—S. to S. goods—“outside” loader’s book—waggons half loaded and left—loading sacks’ mouths to centre—hay and straw—heavy articles and machinery—articles of great length—sawn boards, distinguishing—timber, round—weight per cubic foot, measuring—dangerous goods—gauge of load—coal loading and conditions of carriage—loading tranships—labelling waggons—sheeting—invoicing office—places where invoicing is done—passage of notes from platform—invoicing goods before they are loaded—checking charges on invoices—owner’s risk—points to see to in relation to consignment notes before invoicing—consignee’s street address—the route—marks and numbers—contents—sender’s weight—calculation of charges—“paid on” check book—omitted “paid on”—grain book—press copying invoices—despatch of invoices—rate book—public rate book—quotation of rates—keeping authorities for rates—waggon books and number-taking—tranships.

THE collection, loading, invoicing and despatch of goods, constitute one of the most important branches connected with railway business. Upon the perfection with which these several matters are performed greatly depend the quickness of transit from the sender to the consignee, the correctness of charge and the accuracy of the station accounts. In fact, the forwarding branch is the vital part of the whole system; it precedes everything else, and what follows afterwards partakes of it more or less, and is either good or bad, perfect or faulty. As the forwarding branch is perfected, so in the same ratio there is a decrease of goods lost, goods delayed, goods in bad order, claims, undercharges, overcharges, wrong rates, erroneous calculations and a variety of other troublesome matters.

Taking these facts into consideration it may be supposed that every endeavour has been made to discover the best system, and the best organisation, whereby the highest state of perfection in this particular branch might be attained. In seeking to arrive at this point of excellence it is but natural to suppose that the minds of different men would lead them to follow different plans in striving to

accomplish the end desired. This has really been the case, and many men have applied themselves perseveringly and industriously to practically work out the best plans. The effect produced has been to engraft on to the railway system several different plans, different men having become wedded to their own original ideas, which in a measure they have perfected and thus the outcome has not been uniform, but plans usually varying one with the other, owing to the station accommodation, and the business ways of different large towns. Uniformity is not always to be worshipped, but still we are fain to believe there is one "best" way to do a thing, though many other ways may be found to accomplish the same thing, but on close investigation at a disadvantage somewhere. The first system acquired by a person, and the daily habit of following it, renders the mind so prejudiced and mechanical that men are apt to confine their ideas to their one system, with which they plod on satisfied and contented quite regardless of acquiring other ideas or exchanging their own for new ones. Thus men in middle life are often condemned as impracticable and behind the times, and cease to take part in the onward progress of organisation.

With the acceptance of goods to carry by a carrier from one town to another there is involved the means of being able to deal with the traffic as it is presented. The following is an enumeration of the different operations incidental to the carriage of goods at the forwarding or departure railway station where the "acceptance to carry" takes place:—

1. APPLIANCES AND ACCOMMODATION OF SPACE TO ADMIT OF THE GOODS BEING HANDLED.
2. THE LEGAL RESPONSIBILITY OF ACCEPTING AND MAKING THE CONTRACT OF CARRIAGE.
3. THE ACTUAL ACCEPTANCE AND THE PROCESS OF WEIGHING.
4. THE PROCESS OF SORTING THE GOODS AND THE CLUBBING OF THEM TOGETHER FOR EACH DESTINATION STATION.
5. THE PROCESS OF CHECKING AND LOADING THE GOODS INTO THE RAILWAY WAGGONS AND THE SHEETING OF THE WAGGONS.
6. THE PROCESS OF INVOICING—THE INVOICE OFFICE—THE MARSHALLING AND DESPATCHING OF THE WAGGONS.

APPLIANCES AND ACCOMMODATION OF SPACE.—Wherever a difficulty arises in getting the work done, the first thing to enquire into is—have the staff the necessary appliances and accommodation to do the work? Rather more than half the "muddles and blocks" that have arisen at stations in past times have arisen from deficient appliances and accommodation. If not actually our mission it has unfortunately too frequently been our lot in railway life to have had to re-organise stations in a "muddle," from a small station like Brettel Lane, many years ago, to a large station like Camden town (London) in 1862. Stations in a "muddle" have also come under our control, not only in England, but also in Canada, India and Ireland, covering an extent of observation not vouchsafed to many railway

men; and we therefore say again, after due consideration of the matter, that more than half the "muddles and blocks" at stations have arisen rather from a want of appliances and accommodation, than from deficiencies of the staff. Camden Town, however, was purely a staff difficulty, intermixed with re-organisation from the carrier's system of working, to that of the company's system. It is in defence of the staff that we advisedly say this, for we have seen many men of good average abilities ruined in reputation from causes quite beyond their own control, such causes having been principally insufficient appliances and accommodation to handle the traffic. They certainly lacked discernment to put their fingers on the "blots," and to make them by constant reiteration their prominent defence and complaint. It is true that on some occasions an exceptionally ingenious man will pull through a difficulty and make more use of and do more work with limited accommodation than many average men could do: of course the work in such cases is not done well, but it passes count, and temporarily removes inconvenient complaints. It is often done by working the men at high pressure, and with a display of great energy and dash. This kind of thing is serviceable to pass over a crisis, but it never lasts. It once fell to our lot to take charge of a busy station that had had three agents in eighteen months (i.e. Brettel Lane), and the difficulties that had to be overcome were chiefly deficient accommodation. The warehouse, yard and sidings would have admirably suited a station doing half the traffic.

By appliances and accommodation we mean plenty of road space *equal to the traffic*, for horses and carts to come to and get from the station warehouse platform—plenty of space *equal to the traffic*, for horses and carts to get to and from waggons of "station to station" traffic—plenty of warehouse platform space *equal to the traffic*, for horses and carts to quickly unload or load packages of goods—plenty of warehouse platform space *equal to the traffic*, to sort and club together the goods in "station order," preparatory to loading. Length of siding accommodation alongside the warehouse platform to hold a sufficient number of waggons *equal to the requirements of the traffic*—plenty of waggons *equal to the traffic*, to load the goods into as quickly as possible after receipt—sufficient checkers and porters to get the goods checked and loaded in the required time. Limited space means more work, and more work means more men and more expense. A permanent expense in wages often becomes a wasteful expenditure, when such sum is largely in excess of the amount of interest on a capital sum, which expended in affording the necessary appliances and space, would reduce the wages cost.

This theorem is often illustrated, but a striking illustration is where one warehouse at a station is used for both inwards and outwards traffic, and is too small for the two kinds of traffic. At a certain hour in the afternoon the delivery of inwards received traffic has to be stopped, whether all has been delivered to consignees or not, because the outwards traffic is commencing to pour in by senders' carts. The two streams of traffic are always in conflict together, and the acceptance of the outwards traffic is always driven off to the latest possible

hour. The consequence is, the time is shortened for dealing with the outwards traffic, and additional labour must, as a consequence, be employed to do the work at a greater speed in a shorter time. Thus wages are increased and an enlarged percentage of errors and claims are the natural product, as sure as that we have flowers in May.

The same theorem is illustrated where a company has insufficient rolling stock (waggon), although sometimes waggons may be badly worked and not supplied where required. In these cases goods cannot be loaded as received from senders' carts, but have to be piled up in the warehouse and thus often twice handled. This renders necessary the goods being loaded at express speed in a limited time, by additional porters at additional cost.

The aim of engineers in constructing goods warehouses seems to have been to confine the erection at each station to one warehouse. If at a small town, it has been a small shed, and if at a large town, then a large shed has been erected. The sectionalising of the work, by putting up several small sheds at a large town, seems not to have been thought of. At important goods stations where train loads are dealt with, the sheds should be convenient, not for a few waggons only, but for a "train load." Another grievous blunder that engineers have made is, in some cases, erecting warehouses at the "block end" of the premises, so that waggons cannot pass out and through at the far end; thus waggons cannot be worked at the two ends of a warehouse, and drawn backwards and forwards and in and out, according as empty or when required for loading.

We object to large sheds and prefer a series of "train-load" sheds, each shed being designed to accommodate two or four trains. The shed construction, most certainly at terminal stations, should be devised with respect to the "train-load" principle. The great object to be attained is that the waggons should be loaded in such perfection of "station order" that an engine may be "coupled-up" at the entrance of the shed to that which has become a loaded goods train, with the guard's van already attached, and the train can go straight away on its journey without a single shunt. Thus in accordance with the number of trains outwards, are required a series of "train-load" sheds, and the same plan applies to inwards traffic. Where there may be several "train-load" sheds some may be common to both inwards and outwards trains during certain hours of the day when it can be so arranged conveniently. It does not follow that these "train-load" sheds need be parallel one with the other, but if the land permits such form of construction so much the better. Although the object is to subdivide, it is not necessary to scatter the sheds widely apart so as to increase inspection and control.

The following form of sheds we consider very convenient.

SIDING

SIDING

PLATFORM

ROADWAY FOR CARTS

PLATFORM

PLATFORM

ROADWAY FOR CARTS

PLATFORM

SIDING

SIDING

The advantages are—(1), that the carts in their access to the receiving platforms are divided, and blocks of vehicles and confusion prevented; (2), the carts by delivering at different platforms contribute to the sorting and clubbing together of goods for each station or set of stations; (3), the length of platform space admits of great freedom in the carts making their deposits of goods, and thus delay to the carts is avoided; (4), the trucking of the goods from cart to railway waggons is reduced to a minimum, being simply across the platform; (5), the waggons may be loaded in the nearest possible approximation to station order; (6), the lateral openings worked by the aid of turntables and hydraulic capstans increase the facility of putting empty and full waggons in and out of the shed by horse power, and thus supplement the shunting by engine power.

The length of the shed must depend upon circumstances. To be a "train-load" shed it should hold not less than thirty railway waggons. If the ground at disposal does not admit of that length being given to the shed, then an extra line of rails may be put down and the train loaded in two halves, loading boards being used between the front and back waggons.

Hydraulic cranes and capstans are of very great service in a shed—they are costly to erect and to keep up the production of the power; and unless the amount of tonnage reaches a high figure they increase the cost per ton of the working expenses. But with hydraulic cranes this is amply compensated for by the increased freedom with which the work is done, by the quicker handling of the goods whereby trains are loaded or unloaded at greater speed, and by the goods being accepted from and delivered to carts in less time. Thus the men can rapidly make a clearance as the work is presented, blocks are avoided, the capacity to meet "rushes" of traffic is increased, and a feeling of security is engendered with the staff that come what may it can be met. By the aid of hydraulic capstans loaded waggons can be moved on straight lines or turned on turntables the same as if they were toys. The poor, patient shunting horses lumbering backwards and forwards are superseded. If there is any work for a horse that can be called cruel, excepting working them in coal mines, we think it is using them for shunting railway waggons, and particularly in tunnels, which is about the worst. The twisting and turning and working in a limited area with the frequent "twitching" in drawing the waggons, wears a horse out quicker than any other kind of work to which he can be put.

At every station there should be a numbered or lettered key-board, either at a gate lodge or other suitable place, and under the care of a railway police watchman. Here after the day's or night's work is over, the clerks, foremen and others concerned, should hang up the keys of offices, lock-up places, warehouses, lamp rooms, telegraph offices, porters' room, checkers' boxes, &c. It should be the duty of this police watchman to go round at suitable hours to see that all fires in offices and other places are extinguished, that all gas is turned off, and all places locked that require to be locked, reporting all omissions so that the persons in fault may be cautioned and reprimanded. The

doors of warehouses should be closed when the work is done, so as to keep out bad weather and thieves. Where large warehouses are not or cannot be conveniently provided with doors, then shed watchmen should patrol the warehouses during the night or during such hours as there are no men at work. The interval of time between the day men leaving and the night men coming on, or again between the night men leaving and the day men commencing next morning, should be provided for by watchmen. A man of the one staff should hand over the custody of the place to the next staff coming on duty. Unless this is done, when goods are stolen, the agent will at once be told, "Oh, it might have occurred between such and such a time when there was no person on duty."

It is also of importance to have a reliable person on duty on Sundays and Sunday evenings, as these times are specially selected by thieves to pillage goods. Trustworthy inspectors or foremen should be selected to act in turn as watchmen, being men who have served some time in the service. The duty should not be left to ordinary porters or men of short service having only a passing interest in the company's affairs.

The same remarks apply to the yard, where on long outlying sidings accessible to determined thieves, thousands of pounds worth of property may be lying in waggons, in a measure, exposed to thieves.

Precautions should also be taken in anticipation of fire. If there be a hose reel and a fire foreman attached to the station, one or two porters should be periodically trained by him in the use of the hose, and accustomed to screw same upon the hydrants. The fire foreman should live near the station, and his residence should be known to the watchman. When a fire foreman is kept, it is a good plan to get a man from some city fire brigade and train him to act as a scalesman, checker or foreman, and give him weekly an extra five shillings, or other suitable sum, in addition to the ordinary wages, for acting as fire brigade foreman. The hydrants should be fixed at well selected places, both inside and outside the warehouses, so that one or another may be accessible and serviceable, no matter where the fire may break out. If the only available appliance is Hildeshiem's Patent Extinguisher, then *several persons likely to be available in case of fire* should be trained how to use same.

THE LEGAL RESPONSIBILITY OF ACCEPTING AND MAKING THE CONTRACT OF CARRIAGE.—There are two kinds of carriers under the law, special carriers and common carriers. The legal liability of the two vary and are different. A special carrier is, in a general sense, an "occasional" carrier, and therefore he may legally carry on whatever terms and conditions he chooses to impose upon his customer, and to which his customer may choose to agree. If the distinction ended here, many complications would be avoided. It happens, however, that "common" carriers may, under some circumstances, convert themselves for particular consignments of goods into special carriers. It is here where disputes arise in respect to liabilities as to whether

the carrier in a particular transaction was a special carrier or only a common carrier.

A "common carrier," as is indicated by the word "common," carries commonly for any person, and hence he is a public servant. For several hundred years it has been a rule of law, that common carriers and innkeepers are, in a sense, beyond other traders, public servants, and as public servants, must fulfil to the public their public professions. Hence if a man makes a public profession of being a common carrier, it then becomes compulsory that he shall carry commonly for *any person* within the scope of his public profession. His public profession brings him within the control and restrictions that, from time immemorial, have regulated the trade of a common carrier, and which is termed the "common law liability." Many contests have arisen as to what constitutes the public profession of being a common carrier. The usage and practice of carrying certain goods at regular times between certain places constitutes a man a common carrier. The issue of printed bills or notices offering to carry at particular times does so in like manner. Painted signboards or printed notices also help to bring a man within the law as a common carrier. The element of professed regularity of service, on the one hand, makes a man a common carrier, whereas an occasional, irregular, fitful service often limits the carrier under the law to the standing of a "special" carrier. In the one case the man by law is a public servant, while in the other he is a private trader, and the legal liability varies in each case.

Even in the case of a man being held to be a "common" carrier, the law defines exceptional cases where he may lawfully refuse to exercise his public calling.

- (1.) *Common carriers can only be held liable to carry to such places as they may hold themselves out to be common carriers to and from, and only to carry such kinds of goods as they profess to carry.*

They may carry goods and not coal or *vice versa*, and in like manner they may make any exceptions in respect to any kind of goods, if they give public notice, and act uniformly to all persons alike.

- (2.) *Common carriers can refuse to carry when they have no convenience.*

If the common carrier's cart is so loaded that he has no room, he can lawfully refuse to accept and to carry. Insufficient waggons or engine power, or blocks of traffic would be a lawful excuse, but the onus of proof would rest with the railway company.

- (8.) *Common carriers can refuse to carry unless the carriage is prepaid.*

This is an absolute power which the common carrier can exercise in respect to exceptional individuals. It certainly dates back to 1820, and probably is more ancient. It is likely that it was a power given to common carriers that they might protect themselves against traders whose credit was at a low standard. The doctrine of "undue preference" requiring a carrier to treat all traders alike seems never to have been applied by the courts to this old right of prepayment of

carriage that had been accorded to common carriers. If railway companies were to require all goods to be prepaid it would greatly simplify station accounts, as there would then be no "to pay" debit at each station. The custom might be easily brought about in a gradual way by increasing the charge some twenty per cent. when the carriage was not prepaid, like unto the plan in force with the post office authorities requiring the postage of a letter or parcel to be prepaid. Should the railways either in England or Ireland come under government control, this would in all probability be one of the first changes likely to be introduced, in like manner as with the parcels post where prepayment is compulsory.

- (4.) *Common carriers can relinquish carrying to certain places or carrying certain kinds of goods.*

In such a case, it would be necessary to give the public adequate notice beforehand.

- (5.) *Common carriers can refuse to carry, if the goods are tendered at an unreasonable time.*

This right dates back to 1701, and justifies railway companies closing the gates of their stations at a fixed hour, and declining to receive goods to carry after that hour, but all persons must be treated alike; and even a company, when using their own carts, cannot lawfully give their carts greater latitude than the carts of traders.

- (6.) *Common carriers can refuse to carry goods badly packed and unfit to stand the journey.*

This right is permitted to the carrier to protect him from careless packing by senders. If, however, the bad packing is visible, and the carrier knowingly accepts the goods, having the opportunity of seeing the bad packing, then he will be held liable for the amount of damage that may be proved to have occurred to the goods while in his possession. If the bad packing is not ascertainable at the time of acceptance, and subsequent damage to the goods can be proved to have arisen from bad packing, then the carrier will not be liable.

- (7.) *Common carriers can refuse to carry if the trader refuses to pay a reasonable charge, but the carrier cannot maintain the refusal, if the charge should be held to be unreasonable.*

Railway companies, being bound by maximum parliamentary tolls, are comparatively free to make any charge they choose within such tolls, provided there be no "undue preference." The old road carriers seem to have been practically free to make any charge they liked; still, in a case of refusal to carry, unless at an alleged excess of charge, they then had to justify such charge to the court. There seems, however, to have been a legislative enactment by which they could also be controlled in their rates, although we cannot trace any case where it was ever put into force. It seems to have been a disguised Act of Parliament, and strange to say, it was not repealed until 1867. It was passed in the time of William and Mary, Act 3, cap. 12, section 24. The justices of the peace of each county and place, at the yearly sessions after Easter, were empowered to assess the rates of land carriage within the limits of their jurisdiction; and a list of the rates so assessed was to be hung up in a public place in each mar-

ket town, and any common carrier taking more than these rates, could be fined five pounds for each offence. This act would have delighted some of the gentlemen who acted on the late Parliamentary Railway Rates Committee.

(8.) *Refusal of dangerous goods.*

Common carriers can refuse to carry dangerous goods, as defined in the 8 Vic., cap. 20, section 105, particulars of which are given in the classification of goods.

Having in a condensed form defined the exceptional cases where a common carrier may lawfully refuse to exercise his public calling, it is now necessary to treat of the variations that may be engrafted on the "common law contract" to carry, and which will fix upon the carrier still additional liability.

In *Muschamp v. Lancaster and Preston Junction Railway* (1841), Lord Abinger told the jury that where a common carrier takes into his care a parcel directed to a port or place, and does not, by positive agreement, limit his responsibility to a part only of the distance, that is *prima facie* evidence of an undertaking on his part to carry the parcel to the place to which it is directed, although the place may be beyond the limits within which he in *general* professed to carry. The railway clearing houses were ultimately evolved out of the consequences arising from this judgment. This decision practically led to through booking, but the principle in law had been enunciated as early as 1793, if not earlier, in the case of *Hyde v. Trent Navigation Company*, where cotton was burned in a canal warehouse in Manchester, and the Navigation Company having accepted a separate sum to pay the cartage from the warehouse to the consignee's premises, the court held the contract of carriage was a "through contract" and had not been concluded at the time of the fire. It appeared the acceptance of the cartage money by the Navigation Company was not with the intent to perform the cartage themselves, but simply to pay the money to a carting agent they favoured.

Thus it will be seen that it is quite immaterial, in a legal sense, whether or not there may be through rates to the place to which the goods are going. It all depends upon the wording of the consignment note, and hence the greatest possible care should be taken that the wording of the consignment note does not involve the company in a contract of carriage beyond the place to which the company is willing to carry the goods. It is prudent in all doubtful cases to require the sender or his representative to remark on the consignment note or direction "By ——— Railway Company to ——— Station," the station named being one to which the receiving company is accustomed to send goods. It is well to have the company's consignment notes printed with these words inserted, and then senders can fill in the blank spaces.

It will be seen from this how necessary it is that the *wording* of consignment notes should be closely scrutinised. Receivers and scalesmen accepting goods are often too free with their pens in altering and amending consignment notes to oblige sender's carters or servants. This practice cannot be too strongly condemned. We never allow

such a case coming under our notice to pass without punishing the man in fault. No company's employee should ever put pen or pencil to paper to alter, add to, or erase sender's writing on a consignment note or address card. Such writing should be held even more sacred from alterations than the totals of invoices. The sender's servant should be supplied with pen and ink and left to alter, add to, or erase the writing on the consignment note or address card as may be necessary to enable the company to accept the contract of carriage. The signature of the sender's man should be appended to any alterations he makes. If he declines to amend the note, refuse the goods and let them be taken back to the sender's premises. Any alteration of a consignment by a company's servant is open to repudiation by the sender, and the company stands committed to the contract, as the consignment was originally written and not as it may stand after the amendment or unauthorised alteration. The same caution applies to carters who collect goods from sender's premises.

Consignment notes and address cards also require to be closely scrutinised to avoid an implied special contract being fixed on the company. That is acceptance with an injunction written (*or even verbal*) from the sender that the goods must be delivered before a particular time, for a particular event, such as a race meeting, show or otherwise.

The law holds a common carrier responsible to carry in "reasonable time and according to usage." No further liability as to time can be fixed on a common carrier, yet a common carrier is free to undertake a special contract to carry in a "specified time," and if he does so he cannot afterwards shield himself behind the doctrine of "reasonable time," because he has agreed to do something beyond that, and must pay the forfeit for his failure. It may be from inadvertence that the increased liability has been incurred, but if the liability was embodied in the wording of the consignment, and a signature on behalf of the company given, the law will hold the company liable, whether the liability became fixed on the company knowingly or unknowingly. This liability may also be fixed on the company by a verbal contract, that is, by the conversation which takes place between the sender's carter and the company's receiver. Thus receivers of goods should be very wary of any remarks made by the sender's carter as to the time the goods are to arrive at their destination, or as to their value (see legal responsibility of acceptance). Receivers should decline to fix any time, and refer the carter to the office for such inquiries to be answered. Such remarks as "forward immediately, wanted on Saturday morning;" "must be at — Station by Monday certain," should not be passed over lightly.

In the case of *Shoulder v. Great Western* (1867), Justice Lush told the jury, "If you want to make a carrier liable for negligence in delivering goods, you must give the carrier notice of what you want the goods for; that you want them at a given town by a given day, then you put him on extra care. It has been long decided, that if you deliver a package to a carrier to carry, without telling him of any extraordinary consequences that will ensue to you if it is not delivered

by a given time, you cannot recover any special damages arising from delay."

In such a case the company *may refuse to carry except on their "common law liability,"* that is in "reasonable time." The company however may undertake to carry within the fixed time, and may demand an increased charge for taking the increased liability and giving the quicker or guaranteed service.

The humblest servant of a carrier *acting within the scope of his authority and duty*, can bind his master by a conversation with the sender's carter. The only rule of law by which the carrier can escape what may have amounted to a bargain is, was the carrier's servant in what he said or agreed to, acting within the scope of his authority?

In *Anderson v. Chester and Holyhead* (1858), the Chief Justice in his charge to the jury decided that as a point of law, Jones placed in the position in the company's office, taking money from the public for carriage of goods and cattle, had inferentially authority to bind the company by such a special contract. The contract was that horses booked in Dublin should reach Shrewsbury in time for the fair.

Now, a *common* carrier can at different times legally occupy a dual position, inasmuch as *with the consent of his customer*, he may convert himself into a *special* carrier for any particular consignment of goods. The law holds the *common* carrier to be not only a carrier, but an insurer during the period of carriage. The only exemptions are, "the act of God and the Queen's enemies." There are also further exceptions as to certain goods over ten pounds in value, of which more hereafter.

The old road carriers always were and *still are* free to make special contracts with their customers, whereby they convert their liability from that of a *common* carrier into that of a *special* carrier, and thereby cease to be insurers. Thus no restrictions exist with them, beyond what may apply by common law to any two persons who may choose to make a contract together.

Railway and canal companies, however, are not free to convert themselves into *special* carriers apart from legal restrictions. Section 7, chapter 31 of the 17 and 18 Victoria, commonly called the "Railway and Canal Traffic Act of 1854," is the enactment that defines and qualifies the kind of special contract a railway or canal company may legally make with their customers.

To facilitate an undertaking of this section 7, we have extracted parts of it into divisions and appended headings to each.

PUBLIC NOTICES LIMITING COMPANY'S LIABILITY ARE ILLEGAL.

"Every such company as aforesaid shall be liable for the loss of, or for any injury done to, any horses, cattle, or other animals, or to any articles, goods, or things in the receiving, forwarding, or delivery thereof, occasioned by the neglect or default of such company or its servants, notwithstanding any notice, condition, or declaration made and given by such company contrary thereto, or in anywise limiting such liability; every such notice, condition, or declaration being hereby declared to be null and void."

CARRIER EMPOWERED TO MAKE A SPECIAL CONTRACT WITH HIS CUSTOMER, WHICH A JUDGE SUBSEQUENTLY MAY HOLD TO HAVE BEEN "JUST AND REASONABLE."

"Provided always that nothing herein contained shall be construed to prevent the said companies from making such conditions with respect to the receiving, forwarding and delivering of any of the said animals, articles, goods or things as shall be adjudged by the court or judge before whom any question relating thereto shall be tried to be 'just and reasonable.'"

THE SPECIAL CONTRACT NOTE FOR CARRIAGE AT "OWNER'S RISK" MUST BE SIGNED BY OWNER OR HIS SERVANT WHO DELIVERS THE TRAFFIC.

"Provided also that no special contract between such company and any other parties respecting the receiving, forwarding or delivering of any animals, articles, goods or things aforesaid shall be binding upon or affect any such party unless the same be signed by him or by the person delivering such animals, articles, goods or things respectively for carriage."

During the thirty years from 1854, while this section 7 has been in force, several hundred cases have been tried in the courts in respect to railway and canal carriers' special contracts at owner's risk. From these decisions the law has been built up by the courts and various fixed principles established. To enter into them here would involve a short treatise on law which is beyond our intention.—(See "Carriers Law" by same author).

In treating of the legal responsibility of accepting and making the contract of carriage, it was necessary to explain simply the principles of the law in respect to "special" contracts. It will be seen from the foregoing that notices limiting liability are illegal, that a *special* contract must be such as a judge will hold to have been "just and reasonable," and that the special contract note must be signed by the sender or by his man delivering the goods or cattle. If, therefore, receivers and scalesmen are not properly advised of the requirements of the law and carry out same, then the law will not afford any protection to the company who may consequently be called upon to pay heavy claims that might have been avoided.

In the old days of stage coaches and carriers' road vans, bankers and jewellers sent bank notes and valuables in small parcels, either by the one or the other conveyance. The carriers of those days required to know beforehand when they were desired to carry a parcel over ten pounds in value, that they might take extra precautions, and this led to the passing of the Carriers Act, 1 William IV., cap. 68, in 1830. In the section on "reporting claims," the legal aspect of the Carriers Act is referred to, and hence it is only necessary to point out here the precautions to be taken at the time in respect to the acceptance of the goods.

The Carriers Act requires that the carrier shall exhibit a notice (copy of the Act) in a conspicuous place where the goods are actually

accepted from the senders for conveyance, and the weighing scales as well as the outwards office are suitable places. Such notice should be in fairly large type, so that where the sender's man *stands* to deliver the goods, he may easily see and read the notice. There are also other Acts of Parliament and notices that require to be exhibited at goods sheds, booking offices and town receiving offices, viz. :—

The Company's Tolls, Rates and Charges.

The Cattle Insurance Act (17 and 18 Vic.)

The Bye-Laws as to Explosives.

The Bye-Laws as to Dangerous Goods.

The Company's General Regulations for Carriage of Goods.

The Transit of Goods, partly by Land and partly by Sea.

The Carriers Act, 1 William IV., cap. 68, 1830.

The following additional public notice is exhibited by the London and North-Western Company :—

"The London and North-Western Railway Company hereby give notice that shoddy, rags and mungo will henceforward be taken and carried by them, only as dangerous articles, within the meaning of their general notices respecting dangerous articles;

"Also, that they do not undertake to warehouse any such articles, and that such articles if left or retained on the company's premises for the convenience of the sender, consignee, or owner, are so left or retained entirely at the parties own risk and cost, in every respect;

"Also, that the company will not be responsible for any loss or damage to shoddy, rags or mungo, whether through fire, heat, accident, exposure to weather or otherwise, either during transit, or whilst in the company's possession, or on their premises.

"And the said company hereby also give notice, that parties sending shoddy or mungo manufactured with composition and water or other ingredients instead of oil, will be held responsible for all loss, damage, or injury to the goods or property of the company or of other persons, arising from the ignition or combustion thereof."

The act of declaring the goods as being over ten pounds in value must originate with the sender, as laid down by Justice Pattison in *Hart v. Bazendale*, where he says, "I think the Act requires the person who sends the goods to take the first step, by giving information which he alone can give; then the carrier may charge an additional price, but he can only charge the price notified in his office."

The first step, however, need not be a *formal declaration*. In *Bradbury v. Sutton* (1871) a casual conversation between sender's packer and carrier's carter was held by Chief Baron Kelly to be sufficient to put the carrier upon his guard and to make him liable. If the sender can prove he made the carrier cognisant that the goods were in value over ten pounds, such goods being within the Carriers Act, and the carrier omits or neglects to make any extra charge, the carrier is still responsible for the full value if a loss occurs. Having had the option of making the increased (insurance) charge and not having done so, it is held that in point of law he waived his right to an extra charge.

THE ACTUAL ACCEPTANCE AND PROCESS OF WEIGHING.—It is incumbent upon traders when delivering goods to a railway company for conveyance to make a truthful declaration as provided for by the 8 and 9 Vic., cap. 20, section 98.

“Every person being the owner or having the care of any carriage or goods passing or being upon the railway, shall, on demand, give to the collector of tolls, at the places where he attends for the purpose of receiving goods, or of collecting tolls for the part of the railway on which such carriage or goods may have travelled, or be about to travel, an exact account in writing, signed by him, of the *number or quantity* of goods conveyed by any such carriage, and of the point on the railway from which such carriage or goods have set out, or are about to set out, and at what point the same are intended to be unloaded or taken off the railway; and if the goods conveyed by any such carriage or brought for conveyance as aforesaid be liable to the payment of different tolls, then such owner or other person shall specify the respective numbers or quantities thereof, liable to each or any such tolls.”

This declaration of goods for conveyance is usually given by traders on their own printed form of consignment, being the counter-part of their delivery book in which they take the carrier's receipt for the goods. When traders exceptionally decline to furnish such information, upon making them aware of the legal enactment they will probably be led to do the right thing without further dispute. Unfortunately the size and form of printed consignment notes in use with traders, vary so much that it is rarely found that any two notes correspond in this respect. This is very inconvenient for loading and invoicing clerks, when checking the goods into the waggons and making out the invoices, because the eye during the two processes does not readily catch the material parts of the writing. We strongly advocate the use of one universal form of consignment note, which, like a telegraph form, should be supplied to the public either free or at a nominal cost per book of twenty-five, fifty, or one hundred notes. This would greatly expedite the checking and invoicing of goods and often obviate the loss of notes, incidental to the handling of such scraps of paper of unequal size. It would also lead to the avoidance of many errors in checking and invoicing from documents not uniform in character and size. Traders have a hesitancy in using the forms the companies supply, because of the printed conditions attached thereto. We are of opinion that very many of the notices printed on the backs of railway companies' notes are useless as a legal protection, because section 7 of the Railway and Canal Traffic Act distinctly does away with such notices. The companies have only legal protection either under (1), their common law liability, or (2), a special contract *signed* by the sender. Therefore we think the notices, if not entirely done away with, might advisedly be reduced in number, and traders' objections thereby removed to the adoption of the companies' form of consignment note. We see no legal difficulty in making the use of the companies' consignment notes compulsory, provided it does not involve what might be held to be forcing illegal conditions upon the

senders of goods. An agent must, however, obtain a consignment with all goods, showing the station to, consignee's and sender's full address, the name and number of street, also declaring the description, *contents*, and weight of the goods. When senders do not send this declaration, hand the person delivering the goods a printed consignment note form to fill up, and sign, on sender's behalf. If he cannot write, let the receiver or scalesman fill up the form, and read it over before handing it to him, and care must be taken to *get his signature or "cross" witnessed*.

An agent should caution his men never to allow empty packages to be deposited on the station premises without a consignment note being handed in at the same time by the sender, and the carriage paid. Sender's men, familiar with a station, will often throw down empty packages and the agent then becomes involved in blame, because the packages being found on the company's premises it is alleged afterwards they have been at the company's risk to carry. Empty packages lying about derelict in this manner often suffer damage, and claims may be made both for the damage and delay. Either senders or consignees, or both, should be written for the carriage when any packages are so found, and the packages not forwarded until the carriage is paid.

Traders sometimes fraudulently impose upon companies in declaring the weights of goods and in describing the character of the goods, the object being to avoid paying the proper charge. In addition to correcting this at the time, advise the senders by letter of having discovered such discrepancies. If the unfair practice is repeated report the matter to your goods manager and let him take it up direct with the trader. Before taking this step, however, you might advisedly send the trader, if available, a printed copy of the following section of the 8 and 9 Vic., cap. 20, section 99.

"If any such owner or other such person fail to give such account or to produce his way-bill or bill of lading to such collector, or other officer or servant of the company demanding the same, or if he give a *false account*, or if he unload or take off any part of his lading or goods at any other place than shall be mentioned in such account, with intent to avoid the payment of any tolls payable in respect thereof, he shall, for every such offence, forfeit to the company a sum not exceeding ten pounds for every ton of goods or for any parcel not exceeding one hundredweight, and so in proportion for any less quantity of goods than one ton or for any parcel exceeding one hundredweight (as the case may be) which shall be upon any such carriage, and such penalty shall be in addition to the toll to which such goods may be liable."

Thus when goods are sent in packages that are declared as empty, and such declaration proves to be false, the sender is legally liable to a fine of ten pounds in addition to paying the proper carriage on the goods. When goods are put into packages that are declared as empty, the fraud can generally be detected by the weight or by the rattling of the goods. A carrier has no defined legal right to open packages declared as empty, even if he suspects they contain goods, but he need not have much scruple in doing so. He, however,

has a legal right to open packages he *may suspect* to contain dangerous goods. The Clearing House classification directs that all undescribed goods be charged fifth class, and if this is faithfully carried out it is a great check upon senders, leading them, in their own interests, to accurately describe the contents of their packages.

While the law makes a provision to protect the carrier, it equally provides protection for his customers, as will be seen by the following case, showing that a carrier must not use a false scale, and thereby charge carriage upon a greater weight than represented by the goods.

In the case of *Great Western Company v. Bailie*, tried in the Court of Queen's Bench, November 28, 1864, the court held that the company were rightly convicted under the 5 and 6 William IV., cap. 63, section 28, for having at their Aynho station a false weighing machine, viz., a parcels spring weight standing at 4 lbs. when it should have been standing at zero. Thus a 14 lb. parcel would appear to weigh 18 lbs., and the charge, Aynho to London, instead of being tenpence would (if no allowance was made) be charged elevenpence.

To recapitulate and condense the following are then the considerations to be kept in mind when receiving goods:—

- (1.) To see as far as practicable from inspection and from sender's declaration, that the class of goods tendered can be carried without injury to other goods.
- (2.) To see that all goods are accompanied with consignments or directions that do not make the company responsible for a contract to deliver beyond where their means or arrangements admit, viz., beyond the carted limits of a railway station—on board a foreign going ship—to a station on a line with which no arrangements are in operation, or to any point where there are no through rates. (Receivers should have a printed list of the stations to which the company profess to carry.)
- (3.) To see that no special contract is embodied in the consignment note to limit the time of delivery to consignee, or otherwise to increase the ordinary "common law" responsibility. Neither an agent nor any of the company's employees should on any account be induced to guarantee the time of arrival or delivery of goods. The Lancashire & Yorkshire Company have very properly classified and condemned the following kind of remarks on consignment notes:—
 - (a) "For a particular market."
 - (b) "No carriage paid if not delivered to-morrow."
 - (c) "Unless delivered to-morrow morning consignee will refuse to receive goods."
 - (d) "To be delivered to-morrow clean and in good condition."
 - (e) "To be shipped this morning."
 - (f) "To be delivered not later than nine o'clock in the morning for shipment, certain—very important."
 - (g) "These goods must be delivered to consignee between two and six p.m. on Saturday."

The company's liability by law is to carry in "reasonable time." Therefore no promise need be made to despatch at any particular time, by any particular train, nor for any particular market.

- (4.) To see that the goods bear every appearance of being in good and dry condition, and that the contents do not rattle so as to indicate a breakage. The packing and sound condition of goods in hampers and other packages can in a measure be tested by shaking the packages, and if there is glass, china, &c., broken inside, it will rattle.
- (5.) To see that the wording of the consignment note corresponds with the marks, number, address, &c., on the direction or address card.
- (6.) To see that the goods have the appearance of being sufficiently well packed or protected as to preserve them from injury under the ordinary contingencies of railway transit.
- (7.) To see if the goods are comprised in the list embraced by the Carriers' Act, and whether sender's man, orally or by written declaration, declares the value to be over ten pounds. If such declaration is made, then the sender's man should be taken to the invoice office to pay the insurance charge. If sender's man mentions the value as being over ten pounds, and neglects or refuses to pay the insurance, then the goods should be refused unless the note is endorsed that the goods are to be carried at sender's sole risk.
- (8.) To see that only one name is given as consignee, and that a second consignee's name is not given to whom the goods are to be held to the "order" of. There, however, is one exception to this in the case of bonded goods that are both consigned to the Customs or Inland Revenue Officer, and also on account of Mr. —, the consignee or owner.
- (9.) To see that when goods are consigned "to order" the consignee's *full name and full address* is given, because goods may be consigned to Jones' order in London, and Jones may live in Edinburgh.
- (10.) To see that when there are two or more stations of the same name as the destination station *the county* is mentioned, so as to identify the particular town to which the goods are to be sent.
- (11.) To see that all spirits (not under bond) in quantity over one gallon, are accompanied by a permit as per 1 and 2 William IV., cap. 55, section 28, also 43 and 44 Vic. (1880), cap. 24, section 105.

Accepting goods and consignment notes without remark, and giving a signature for the goods, constitutes an undertaking by common law to deliver them in like good condition. If the goods are left without any consignment note, the address or direction on the goods constitutes the instructions for forwarding.

Refuse goods that are broken or damaged so as to become useless, such as mirrors, glass and castings, &c. An agent is most likely to have these tendered by other carriers, and if he accepts them, the

chances are he will get nothing for the carriage, and involve himself in a great deal of trouble in becoming the medium of complaints from the receiving stations. Let the faulty and responsible carrier arrange directly with the owner of the goods for the damage. When carriers or railway companies tender goods only slightly damaged, of course receive them, giving a signature in accordance with the circumstances. Large mirrors, pictures, cases of marble and other goods of great value that may be insured, the sender may be required to open the cases so that the sound condition of the articles may be testified by examination.

Consignments that disagree with the directions or marks on the goods, and lead an agent to suppose that there is an error, should not be accepted. If, however, they have been accepted, the goods should not be sent forward until both are made to agree by the sender. Particular care is necessary where goods are not addressed but only marked and numbered. A bale of Manchester goods was on one occasion sent from Liverpool to South America in error, the warehouse clerk having delivered to the shipping broker's carter a bale marked L. F. instead of one marked L. E.

Refuse goods that are improperly packed, or insufficiently protected, as the company are likely to be held responsible for any damage occurring in consequence, if such imperfect packing was observable at the time of delivery. A judge might reasonably ask why the company undertook to carry the goods, if they were in the first instance improperly packed.

In cases where goods are addressed "carriage paid," and the carriage is not paid, cause sender to alter the address or refuse the goods.

In giving receipts to senders for goods the signature should be given in ink, and the company's servant signing should write his name in full and should put the date (24/2/83) under his signature, if a dating stamp is not in use. A dating stamp should be in use at all principal stations seeing how cheaply they can now be procured. Without this precaution some senders may carelessly or purposely ante-date the consignment note, and a signature being given on such a note without remark, afterwards gives rise to serious disputes in cases of claims for delay as to the true date of the delivery and acceptance of the goods. If the goods are signed for, and remarks made in ink, then if it happens that the goods are in loose order, the remark to that effect cannot be easily rubbed out, as may be done when the remark is written with a pencil.

Where goods are carried in waggon loads at "owner's risk" the following form of stamp is useful, "———Railway Company, carried at waggon load rate, not accountable for weight or number." Some companies, if not in all cases, in some instances, prefer to give their own printed form of receipt, and to use for the purpose a counterpart book from which the receipt is cut leaving the block for reference. We think it very desirable that this should be brought into general use in all cases, *when goods are signed for in bad order*, because in cases of claims the blocks could be referred to and the actual words

seen and their legal value appraised before the case might pass into court.

It is a bad practice to give signatures some hours or days after the goods have been received. If the sender chooses to leave goods with a carrier, omitting or neglecting to obtain a signature at the time, he must stand by the consequences. It generally happens when the request is made, that the goods have gone astray or are deficient in number, or there is some dispute between sender and the consignee, and the sender wants to drag the carrier in as a witness or umpire. Do not give receipts or duplicate receipts after the goods have been delivered without knowing the real object for which they are required; and if then an agent may choose to oblige the sender, let it be done as a favour which should not be asked too often. In some cases before giving the receipt or duplicate receipt, write to the receiving station to "prove delivery," and until you know a good signature is held for the goods from consignee, abstain from giving the receipt demanded. We have known cases where a steamship carrier, after having obtained a "bad signature" for a package, a week afterwards put the same entry on a new delivery sheet and endeavour to get a good signature for such package.

Giving receipts for grain, cotton, guano, or other traffic carried in large lots, often involves great risk. A sender sells to consignee a lot of a thousand or more bags or bales, but cannot deliver it all to the carrier on the one day. He will lodge a consignment note for the thousand bags and spread the delivery over several days, and thus "slip-notes" have to be made by the carrier's receiver or scalesman for each day's delivery. This practice we have always resisted, and required the sender to hand in each day a note for the day's delivery. The carrier has nothing to do with what particular parcel of goods sender may sell to his customer, nor does he want to know; the carrier only wants a note for each day's transaction so that he may invoice and get done with the traffic day by day. When a sender and a consignee get into a legal dispute as to quantity, we have been on occasions handed a list of twenty large sales of grain over, perhaps, three months, and asked to prove in globo, delivery of same. No one sale was delivered on one day, but formed the aggregate of several day's deliveries distributed over many invoice entries. Now, by accepting a consignment note for a large lot, in this way a company is in a sense liable to prove the delivery in the same form as they have accepted the declaration and the consignment note. To obviate this responsibility we prefer to insist upon distinct notes for each day's deliveries, and then, if any proof of delivery to consignee is afterwards required, by producing the company's daily receipts the entries may easily be traced on the invoices, and the receiving station asked for the requisite proof. This plan, however, does not entirely do away with "slip" dockets, but, at least, it limits them to each day's transactions. "Slip" receipts should be given for each one or two cart loads as the goods may be delivered, and at the actual time of their delivery. The form of "slips" used for inwards delivery of grain (which see), are most useful. A "slip" for each delivery can be given at the

time, and at the close of the day's proceedings these slips on being brought in by the sender can be exchanged for a single receipt for the one day's delivery. By this plan we have for years handled large lots of goods and seldom lost a sack or a bale, and we therefore recommend the plan wherever it may not be in use.

As soon as goods are accepted the time of the acceptance should be marked in ink on the right hand top corner or some other convenient place on the note, thus, "5.0 p.m., 24/2/83." A receiver or scalesman neglecting this, disregards his own safety, as he may be arraigned for omitting to forward goods on a certain day when he is really not to blame, because they were delivered too late, which, after a lapse of time, he is unable to prove unless he has marked the time of their acceptance on the note as a record. Further objects are also to be gained by such a record. If the goods are not loaded directly into the waggon after acceptance, they must lie on the platform, and then it is necessary to mark on the note the time of actual loading. In case of pilferage the time between the acceptance and the loading is often very important in drawing conclusions as to whether the pilferage took place before or after the process of loading. Furthermore, if when the goods are sought for to be loaded and cannot be found, either a theft or a wrong loading will have occurred. In such a case the time of acceptance is useful information to trace what waggons have been loaded since that time, and the missing package may be found in one of them; or you can find out the persons who, since that time, may have had access to the place where the goods lay, and thus suspicion may point to the individual who is actually the thief.

The best and real *point of acceptance* for non-collected goods is on the weighing machine, and we do not think a better place can be devised for the acceptance of such goods. Let the weighing machine be convenient for senders' carters to place the goods upon direct out of their carts. When the goods have been placed on the machine the company's receiver or scalesman proceeds to weigh them, and mark the weight on the consignment note retained by the company, and then if all is right he signs the counterpart receipt and hands same to the carter. This is the actual point where the company's legal responsibility commences and where the acceptance of the contract to carry is made and completed. With some carriers the weight is marked by the receiver on the counterpart receipt and thus a receipt is given for the weight. In some cases senders insert the weight on the counterpart receipt, and if the company's scalesman finds it corresponds with his weight, he may be said to adopt the figures by signing the note without remark. If the weight taken by the company's scalesman differs from sender's figures, the attention of the sender's carter should be drawn to the variation. If the practice is to sign for the weight, the scalesman should in such case insert *his* weight on the counterpart receipt, in ink, and sign accordingly. Let an agent avoid becoming the arbitrator or referee between the sender and consignee in respect to the weights of goods or in any other way. The North Eastern company give receipts for "weight not guaranteed," which is a plan we approve of, and would carry out by the use of a

stamp, stamping the words on every docket. The company really weigh for the purpose of calculating their carriage, and their weight cannot be depended upon as between buyer and seller. We are not able to trace any legal liability on the part of a carrier to sign for the weight of goods. By usage he may have incurred the liability of signing for weight in respect to an individual case, because he does it usually for the public generally; but at the same time he may discontinue the usage generally, and then no individual has any right of complaint. The carrier must in some form give sender an acknowledgment of having received the goods to carry, and a signature is the simplest form, but this does not necessarily apply to the weight. If at the point of delivery to consignee the goods are found in loose or bad order, it is reasonable that they should be weighed, and a signature given and accepted for the actual weight delivered to consignee. The carrier weighs the goods for his own purposes to compute his charges; a pound more or less in a chest of tea makes no appreciable difference in the carriage, but an error in the weighing may afford ground for a claim to be made for deficiency. It is our practice not to sign for weights, and it has often prevented frivolous claims. The weight must be given on the delivery docket at the receiving station to afford consignee the opportunity of checking the carriage. We have frequently known country shopkeepers, finding the company's weight on the delivery docket for a chest of tea to be two pounds less than sender's invoice weight, to deduct the value of the two pounds of tea from the sender, although the chest was delivered to consignee in perfect order and a good signature given. Senders then naturally attempt to claim the amount from the carrier, and it is more convenient in such cases for the company not to have signed for any weight.

As a general rule weigh everything you receive, as far as practicable. The checker or weigher should mark the weight on the consignment notes, and where senders persistently declare goods under actual weight, advise them by letter of the discovery of the discrepancy. Many railway companies lose a large amount yearly through being defrauded in weights, which would be prevented if care was used at the stations to re-weigh after sender's declaration. In the case of ale and porter, grain, barrels and sacks of flour, bags of rice, sugar, guano, &c., in quantities, the weight of each article varies very little; so, if the sacks, bags or casks are about the same size, it is sufficient to weigh one or two, and take an average for the remainder.

Irrespective of the necessity of weighing to make a charge upon the goods, it is daily found important in detecting between what stations pilferings or deficiencies may have taken place. This being the case, make the men particular in weighing small packages of general goods, especially hampers, jars, and casks of wine or spirits, and tea, tobacco, and boxes of fruits. Goods of different classes must be weighed separately otherwise they cannot be charged correctly under the classification.

Railway companies are often defrauded in the weight of "station to station" goods, as at many stations there are no cart weighing

machines, and the senders knowing this, some dishonest traders take an advantage. Where there is any amount of regular "station to station" traffic, a cart weighing machine will soon earn a sum equal to its cost and erection. When there is no machine and the traffic consists of bricks, tiles, slates, deals, sawn timber and such like goods, it may be seen how many articles about the same size might be necessary to make one hundredweight, and then a fair average can easily be taken for the whole consignment.

Furniture vans, threshing machines, show caravans, boilers, carts, and other vehicles must necessarily be averaged in the absence of a railway waggon weighing machine. In weighing under such circumstances it is wise to first take the tare of the empty railway waggon, as during wet or very dry weather the tare of waggons varies.

An agent should caution his receivers of "station to station" goods to be very particular as to signing for weight or measurement of grain, or other goods carried in bulk, unless such goods are actually weighed or measured; in such cases the signature, with the remark added, "weight and measurement unknown," should satisfy the sender. If the grain is carried at "station to station" rates, a stamp with the words on it, as previously suggested, is useful and protective.

A great source of annoyance and of frequent claims arises from the "crossing" of bundles of sacks, wool sheets, and bales rags. Senders cannot, without great vigilance, be made to put *proper address labels* on each of such packages. Good sound parchment, calico or leather labels should be *securely* fastened upon each separate article, and if same are not provided, the consignments should be refused at the forwarding station. Marks and numbers we consider not sufficient in the case of rags; the bundles or bales should each have an address label, to give the men at the receiving station a fair chance of making the deliveries correctly, when separate deliveries over several days have to be made, as is often the case.

It is an objectionable practice to accept grain or other goods "to order" at the forwarding station; unless it be a practice of the particular company no goods should be so accepted but refused, unless the name of a station is given to which the goods can be forwarded. Acceptance of goods at the forwarding station without giving a destination and consignee's name, means converting the carrier into a warehouseman.

Before accepting any kind of heavy goods, boilers, boats, vehicles, &c., it is important to ascertain whether same can be unloaded at the intended receiving station, because at many small stations there is often an absence of suitable platforms, carriage landings, and cranes. Also in cases when furniture vans, large boats, large pictures and mirrors, &c., elevate the load on the waggon very high, so as to nearly touch the station gauge, an agent must consider if there are any specially low bridges that have to be passed on the route, and that are lower than his company's gauge. A list of the height of all railway bridges is contained in the Clearing House regulations. Where there is no waggon gauge at a station, a rod or slight pole cut to the proper length may be used to measure the height of the load.

An agent should periodically, either personally or by deputy, test the correctness of weighing machines and scales, also the working condition of cranes and other station appliances that require occasional oiling. A weighing machine should be always clear of the frame, for if it sticks to the frame it will not weigh correctly. By pressing the plate with the foot it may be easily seen whether it moves freely without binding against the frame.

The chains of cranes from constant wear, tear, and corrosion, become thin at the top and bottom of the links and require periodical examination. Occasional tests should be made by lifting weights amounting to the full lifting capacity of the crane, and allowing the strain upon the chain to continue for a short time. Every care should be taken by the men doing this, that in the event of the crane or chain breaking no personal injury should occur. It is better to break a crane or chain by testing than to go on using both until either one or the other breaks, and perhaps kills a man or smashes a horse and cart from which some heavy weight is being lifted. Where it is possible to take the chain off the crane and send it to a testing-house to be tested, like ships' cables are tested, so much the better.

At important stations where there is a cart weigh-bridge, and sufficient work to keep a lad or clerk constantly employed, ticket weigh-books are required with a fixed number of tickets in a counter-foil book numbered progressively. This is even more particular when a charge is made for the weighing, otherwise there is no check upon the collection of money by the weigh-bridge keeper. These ticket books should only be given out one or two at a time, and the counter-foils of the used books delivered up by the weigh-bridge keeper, and checked with his cash payments before he is given additional new books. Carts require to be carefully tared each day because the tare will vary in wet weather when a cart is saturated with rain water, compared with a dry cart on a dry day. The weigh ticket should show the number and owner of the cart, whether he be the sender or consignee of the goods or not. Where a charge is made for the weighing it should be compulsory on the weigh-bridge keeper to issue a weigh ticket.

Weigh-bridges require to be carefully swept and kept free and clean so that they will weigh correctly. The steelyard and poise require cleaning with oiled rag or some waste every day to keep away rust and enable the figures and notches to be easily seen and understood. The working part should be examined, scraped and oiled once a month by the mechanic or fitter responsible to inspect the weigh-bridges. The pit of the weigh-bridge should also be kept free from water or dirt deposits. The weights should be kept clean and the machine balanced and tested by the scalesman every morning. It is very injurious to a machine to put goods or weights upon the plate when the lever is down and in a position to weigh. The lever should be up and the machine out of gear before putting weights on the plate.

THE PROCESS OF SORTING THE GOODS AND THE CLUBBING OF THEM TOGETHER FOR EACH STATION.—Great saving of labour and expense is effected by loading the goods directly off the scales into the

waggons, immediately after acceptance from the sender. This means a separate loading shed for outwards traffic, plenty of empty waggons, and plenty of standing room inside the shed platform for waggons. The necessary shed accommodation is available at some stations, but often there is not an available supply of empty waggons. Thus a pretty wide platform is of great service, on which the packages can be sorted into heaps, for each station or each district for which they are intended. Separate doorways or bays along the side of a long warehouse are useful, and then a group of stations can be assigned to each doorway, as the company's place of acceptance of goods for certain particular stations. A notice board can be put up at each doorway, indicating the names of the stations. Thus the senders' carts go from doorway to doorway, and sort the goods as the delivery is made, thereby reducing much of the labour incidental to hand-trucking the goods along the platform. If there be a cart roadway inside the shed, then the carts can pass along the side of the platform to the several scales thereon, and make the deliveries in similar station order. If a reliable supply of empty waggons can *always* be depended upon, narrow platforms between the cart delivery and the railway waggons to be loaded are then the best; but where the empty waggon supply is precarious the platforms require to be broad to store the goods for several hours. When the same shed is used for outwards and inwards traffic, one part of the store should be set apart for such goods as may be brought in during the forenoon, and before the hour arrives for closing the cartage delivery of inwards goods. If, between times, a waggon load of outward goods can be made up for one station, hurry it into an available empty waggon at any hour, and so free and economise the platform space.

THE PROCESS OF CHECKING AND LOADING GOODS INTO RAILWAY WAGGONS.—There are three leading systems of loading and invoicing, or what in many parts of the country is termed shipping and invoicing goods.

(1.) From consignment notes.

(2.) From the addresses on the goods.

(3.) A mixed plan or combination of the two preceding plans.

In shipping and invoicing from consignment notes the goods are "checked" from the carts by the aid of the notes, and afterwards checked into the waggons from the same notes; and then the notes are passed either into an invoice office or to a "shipper's box" on the platform, for the invoices to be made from them. In carrying out this plan at a large station it is essential to have separate notes for each consignment of goods *for each station*, and not collection sheets or van bills. In shipping and invoicing from goods the invoice is made out from the address cards or marks on the packages, which are "called off" by a porter as the goods are being weighed or placed into the trucks, and the invoice is completed afterwards from the consignment notes or collection sheets as may be the case. The mixed system is a combination of the two, for the shipper writes out the invoice entries, partly from the addresses on the goods, and partly

from the notes, much depending upon whether he can pick out the particular note from a bundle of notes before him at the precise moment, when the goods relating to that note are being weighed or loaded.

To these three different systems are attached a variety of different little plans; each station agent having designed some small piece of machinery to correct the preponderating irregularities at his own station. This calls to memory the boy who made a boat, and when he put it into the water it was too heavy on the left side to swim evenly, so he cut a piece off the left side, and then the right side was too heavy. After cutting a shaving first from one side and then the other, at last his boat swam evenly. Now, instead of cutting off from the different plans, the fact is that additions have been the prevailing practice. To make the boat swim the reverse has been tried, and little pieces have been nailed on each side until a floating balance could be obtained. The result has often been to render the system more complicated and intricate. Each man has revelled in an original course and multiplied plans, and the consequence has been that no acknowledged "standard" has been attained. Indeed each large station agent has set up a standard of his own, based upon the specialities of his station. We must, however, in fairness allow that there is much blame attached to the engineers who, in past times, planned the stations. These gentlemen no doubt studied to make the most of the small patches of land then deemed sufficient for a station and station sidings, but they were unfortunately inexperienced in the working of stations, and it seems never to have entered into their heads that their plans would seriously affect the cost per ton of the traffic department. They erred through a want of knowledge which was certainly somewhat beyond the bounds of their profession at the time, while they revelled in what often proved to be unnecessary and expensive turntables and inconvenient sidings. The high toned mechanical and professional mind often scorns to use simple means to accomplish an end, just as a noted mechanical genius disdained to use ordinary tools, and invented different and curious ones, many of which were probably no improvement. Although in some cases a limited space or a peculiar position has caused stations to be made particularly inconvenient for working, yet many stations are inconvenient without there being any such excuse; indeed to find two stations laid out alike is an exception. The same experimental ingenuity that has been seeking the best plan for shipping and invoicing goods, has likewise been at work in devising the best form for a perfect station. The engineers, however, have had the best of it, being free and unfettered, whereas the station agents have had to make their plans subservient to the accommodation. Turntables have been multiplied and power has been lost in the same way as in multiplying unnecessary wheels in a machine. A striking incongruity in shipping and invoicing is, that at some stations the goods are hand-trucked direct from the collecting carts into the waggons, while at other stations they are hand-trucked into heaps and then re-trucked into the waggons. Now, one plan must be better and cheaper than the other, but each requires different accommodation and supply of waggons, and therefore

the plan upon which a station is constructed controls the system and the cost.

The following plans at several different large English stations illustrate the preceding remarks.

PLAN No. 1—(MANCHESTER).

The goods are collected by the company's own drays and one man and one boy (a nipper) accompany each dray. Collecting sheets are used, and the boy or carter enters in the sheet all goods collected and pins the sender's consignment note to the collecting sheet. On arrival at the station the dray is drawn up to the unloading platform and the carter hands particulars of his load to the checker. The goods are "called off" and weighed in the presence of the carter, and if any breakage or damage is observed it is pointed out to him, and the checker takes his initials on the sheet as a proof of his having been made acquainted with such breakage or damage. The checker examines all senders' consignment notes and compares them with the collection sheet to see that they are all entered correctly, and after checking the load off the dray he passes the collection sheet to the shipping (invoice) office. The clerks in the shipping office then make invoices for the goods from the sheets, and the sheets being then done with are placed upon a file in progressive order. This system prevents a large quantity of paper, in the shape of loose notes, being scattered about on hand.

The goods are weighed as they come off the dray and are then hand-trucked from the different scales to the waggon sides, where a loader with two or three men to each stage puts them into the right waggon.

A youth enters all goods upon a sheet called a loading bill as the goods are put into the waggon, recording the time loaded, the loader's name and his own name. If the loader finds any damaged goods he refers to the checker to ascertain if noticed by him. All marked goods are labelled by the checker on same passing the scales, to indicate for what truck they are intended. The loaders' bill is sent into the office when the waggon is loaded, and there checked with the invoices for each waggon, and if not in accordance with the invoice the waggon is then examined and the load made correct before despatch. This prevents goods being sent away in wrong waggons.

The trucks are placed in the warehouse in train order and loaded and sent out in the same form, which saves a great deal of shunting and marshalling.

The sundry goods for transhipment are all hand-trucked to a separate platform, and one man has the care of them; and when this man finds on sorting them that he cannot make up a full load, he then loads them into tranship waggons. By this plan no goods are left on hand at night. With full loads the checker fills in the waggon number on the collection sheet, so that the invoice clerks can add the number to make the invoice complete. All consignment notes are pasted on the back of each carter's sheet

so that both entries can be found together when wanted, and the sheets are pasted together daily in the form of a book. Each day's invoices are copied together in a separate tissue book, and this book is used in the shipping office the next day for checking charges, &c. On the second day it is used in the correspondence office, on the third day in the abstract office, on the fourth day in the ledger office, and afterwards the loose books for the week are bound up together.

PLAN No. 2—(BIRMINGHAM).

The goods, with a few exceptions, are collected by the company's carts. Each vehicle is accompanied by two men—the driver and a book-carrier—the latter is responsible for the receipt and handling of the goods. Upon arrival at the station, the platform foreman directs the driver where to place his vehicle for being unloaded—this is done whilst the book-carrier is obtaining from the office a progressive number on his carriage notes. When this has been done, the book-carrier hands the notes to a receiving checker and then proceeds to unload the goods. He calls out the addresses or marks, and description of them, and the checker compares the "call-off" with the carriage notes. Any discrepancy or improper condition of the goods is at once noted and certified for subsequent correction, and in cases of necessity the goods are kept back till next day. The goods to be sent forward that night are hand-trucked to their particular places allotted for each set of stations, and indicated on the platform by *movable sign posts*. The carriage notes are then sent into the office where the goods are entered from them to the invoices, but omitting the senders' weights. The invoices are then sent out to the loaders who weigh the goods, and see them loaded into the waggons; they fill in upon the invoices the waggon numbers and the company's weights. The invoices are then returned to the office to be charged and completed.

The loader is responsible for ticketing and sheeting the waggons, and when this is done the yard foreman orders the shunters how to dispose of the waggons that are to be attached to the trains—care is taken to load the waggons conveniently in station order to prevent unnecessary shunting.

The loaders are responsible for entering their truck numbers in the wagon book from which the guards' road bills are made out. The loose tissue copies of the invoices are passed to the abstract office next morning, and the same day to the undercharge and overcharge office, and the following day to the ledger office, after which, when completed, they are pasted into blank books which, when full, are endorsed and shelved for reference.

It is claimed for this system that it prevents the wrong loading and sending of goods, and effectually checks the improper declaration of weights by senders.

Miscellaneous goods, not sufficient for full loads, are despatched in "station waggons," accompanied by suitable station waggon lists (*tranships*.)

PLAN No. 3—(NORTHERN RAILWAY OF FRANCE AT PARIS).

The goods are accompanied by consignment notes and are weighed and checked on receipt by the receiver, but the receiver in addition pastes a printed label on every package showing the station to which the goods are to be sent, in the same way as is done in England with passengers' luggage. The goods are then sorted into heaps to be loaded into waggons. The consignment notes are stamped by the receiver, who then signs his initials inside the stamp, and also enters therein the number of packages he receives, and then passes the notes into an office where they are entered on to loading notes. The goods are then checked into the waggons from this loading note, the number of the waggon placed thereon, and loading note and consignment notes are passed into the invoice office. Here the invoice clerk compares them together, and then makes out the invoice, and also *the delivery dockets for the consignees at the receiving station*. Thus with each waggon of goods there are *three* entries, and the despatch of the goods is delayed to enable this to be done: there is the loading note entry, the invoice entry and the delivery note entry. At large English cities and particularly shipping ports, the delivery notes being sent with the goods would be of immense advantage to facilitate quick delivery of the goods. The goods could be unloaded and checked off with the loading note, the delivery sheets entered up from the invoices, and then the "to pay" amounts on the delivery sheets checked with the carriage notes. The two processes (1), unloading and checking the goods, and (2), making out delivery sheets could thus be carried on simultaneously.

PLAN No. 4—(YORKSHIRE DISTRICT).

The following plan pervades some of the principal stations in the Yorkshire district. The goods are brought in by carts to the shed platform, and the carter hands his consignment notes or collection sheets to a youth, who acts as weigh clerk at the scales, and he simply inserts the weight of the goods on the consignment notes, which are then passed to another office where the invoices are made out and completed.

The weigher weighs the packages and calls off the weight, sender's name, consignee's name and destination, and the youth records the weight. There is no cessation to this process from six to eleven p.m., as lorry after lorry is rapidly unloaded.

After the goods have passed the scales, a porter hand trucks them straight into a waggon across the platform. About ninety per cent. of the packages however are not weighed, as the weight of Yorkshire bales are generally printed on the outside of each bale. In such cases where the weight may be declared on the consignment notes, the companies, to save time, do not weigh the packages but accept the senders' weights.

PLAN No. 5—(LIVERPOOL).

The goods are received in different sheds and archways, a certain division of stations being apportioned to each. To each receiving shed

there is an invoice shipper, having under his direction receivers and loaders. The receivers accept the goods as brought in and sort the articles on the platform in station order for loading. They sign for the goods, check the consignment notes, mark date and time received and affix their initials. They then place the notes on files on their desks and a lad collects these notes every ten or fifteen minutes and takes them to the invoice shipper who is located in a hut adjacent, and on the loading platform. The invoice shipper then at once, irrespective of the loading operation, invoices the goods from the notes. The goods are loaded without the aid of the consignment notes, but a small loading checker's book is used (8 by 5½ inches) and a separate folio is used for *each waggon loaded*. It is headed date—waggon number—to—. Then there are three columns—(1), consignee; (2), articles; (3), remarks. As the goods are put into the waggon, the checker inspects the packages and enters them in this check book in pencil; he fills in the waggon number, description of waggon, owner, loader's name, time loaded, and then appends his initials.

This check book is then taken to the invoice shipper who, in the meantime, has been making out the invoice.

The invoice shipper then checks the loader's book with his invoice entries, and after discrepancies are reconciled he adds the waggon number to the invoice. The invoice, as far as he is concerned, is then complete, as he does not make the totals.

The invoice with the consignment notes pinned thereto is then passed into an inside office and comes under the manipulation of the *invoice office checkers*.

The invoice office checker goes over the work of the invoice shipper and sees that the entries have been correctly copied on to the invoice from the consignment notes (1), sender's name; (2), consignee's name and residence; (3), number and description of goods with their marks and numbers; (4), weight; (5), rate; (6), "paid on;" (7), "paid;" (8), "to pay;" (9), waggon number. In fact the whole is closely scrutinised.

When all is found correct or made so, the invoice checker then initials the invoice and passes it on to the copyist. The copyist inserts the progressive consignment note numbers on the invoice and marks on the tissue copies the time copied and the invoice is then ready for despatch.

This plan we believe was devised before 1851 by the late T. K. Rowbotham, Esq., of the Lancashire and Yorkshire Railway Company, afterwards General Manager of the North British Railway Company.

We have never heard of it being in operation in any other place than Liverpool, but it merits very general extension, notwithstanding that it somewhat adds to the clerkage cost.

It may be said to involve greater work and expense, but in the long run this may be questioned in the presence of the following advantages—(1), greater correctness and satisfaction are obtained; (2), errors of goods being wrongly invoiced, and claims arising in consequence, are almost entirely prevented; (3), the labour of making

many undercharge invoices and overcharge sheets, and the cost of forms is saved; (4), the difficulty of making a balance sheet when perplexed by numerous overcharges is decreased; (5), work saved at head offices, in having to deal with an enlarged number of overcharges, and the correspondence connected therewith.

PLAN No. 6—(LIVERPOOL COTTON LOADING).

The cotton loading is carried on same as with station to station goods, direct from the carts into the railway waggons, an intervening platform not being in use. As each load is brought into the yard, a company's man collects the consignment notes from the carters at the gate. This man makes a rough entry in a small book, entering the date, time, number, and name of the lorry owner. He also gives the consignment note a progressive number, and inserts on it the time the lorry passed in. The notes are then at once passed to the invoice shipper's hut, and the invoice shipper can detect by the progressive numbers whether or not he gets all the notes.

A small cotton loaders' book, $7\frac{1}{2}$ by $4\frac{1}{2}$ inches, is in use, and a separate folio is used for each consignment (see page forward). The invoice shipper fills up in this little book the date, from and to, — bales of cotton, marks —. Two waggon labels are then made out and a loader called. The loader then, without knowing the number of bales consigned, has to load the consignment and count the bales. In the loader's book are about sixty little square spaces, and into each space the loader inserts the number as taken from each bale. When the loading has been completed, the loader, after putting on the waggon labels and signing his name, takes his book to the invoice shipper, and the latter checks the gross number of bales of cotton loaded, and the particular number of each bale. This check is made by comparing sender's consignment note with the loader's book.

This system is very simple and certain, and is applicable to all kinds of station to station goods, loaded or unloaded in a yard.

PLAN No. 7—(BIRMINGHAM).

The goods are collected from senders' premises by the company's drays, and also by the company's agents' drays. One man and a boy or two men accompany each dray, called respectively driver and book-carrier. Consignment notes are handed to the book-carrier by the senders for each consignment of goods, and he signs senders' delivery book for same if called upon to do so. The notes, together with the goods, are then brought to the station and unloaded on to the platform or deck. A checker is in attendance on the arrival of the drays, to whom the notes are handed. The goods are then unloaded and called off by the drayman to the receiving checker before named, and he remarks as to the condition, &c., on the notes. The goods are then sorted and trucked for their respective destinations or "berths," indicated by printed labels attached to the warehouse pillars.

The notes are then passed from the front to what is termed an "extract office," and here when it is found that a consignment note contains goods for more than one station, separate slip consignment

notes, on the company's forms, are then made for each station to which goods are consigned. Thus the goods are dissected into station order for the convenience of checking and loading them into different waggons. There are three clerks in this "extract office," and on an average there are about a hundred notes each night requiring to be dissected, with about six separate entries on each. In the process of dissection care is taken to leave on the "parent" note goods for one particular station, for which there are the most entries. The amalgamated notes having been split up, all the notes are then sorted in this "extract office," into the same districts into which the goods have been previously sorted. The notes are then passed to, or picked up by the shippers, who see to the weighing and loading of the goods, placing on each note the number of the waggon into which the packages are loaded, and inserting any remarks as to condition, &c., not already made on the face of the note. The notes are then placed in a box attached to each shipper's hut, and collected by a messenger and carried into the invoice office for the clerks to make out the invoices. The stations are divided into groups or districts, and each clerk is on the look out for the notes of the goods he has to invoice. With the invoicing process the notes are numbered in consecutive order, and the numbers inserted in the margin of the invoices against each entry. Each invoice clerk runs out his own calculations and, in fact, completes his invoice. The invoices are then copied on to loose tissue paper and made up for despatch either by attaching them to the waggon sides or sending them by passenger trains.

Next day the tissue copies of the invoices are compared with the notes, and any discrepancies in weight, wrong addresses, rates, or omitted conditions, marks, or wrong calculations are corrected by correspondence.

The consignment notes are then sorted into progressive number order, made up into bundles and placed in the correspondence office for future reference.

The tissue copies of invoices are each day made up in separate sections into book form with a brown paper cover, for use by the abstract and ledger offices as required. A few days after the end of the month, these tissue copies of invoices are bound up in their proper sections, London invoices being kept together, Liverpool and Manchester together, and local and foreign, each forming separate books.

Goods loaded for transfer are dealt with like other goods, small quantities being loaded to the nearest point to destination for which there is a through load.

Waggons as far as possible are loaded in train order, and when this cannot be done, they are marshalled in proper order by the aid of turntables and hydraulic capstans.

PLAN No. 8—(LONDON).

The receiving houses act as feeders to the goods stations, and have been established to cover the principal districts of the metropolis—some railway companies having as many as seventy-five receiving houses throughout London.

Collecting vans, which are principally "one horse vans," are appointed to serve each receiving house, and goods are both collected by the company and brought in by the public during the day to the receiving houses. The goods are worked away in full loads, as a sufficient weight accumulates. The collecting carts usually finish their last collections on their route from the receiving office to the goods stations. The collection ceases at 6 p.m. on week days and 4 p.m. on Saturdays.

Senders' original notes are brought with the goods to the receiving houses. When there are separate notes for each station to which the goods are consigned, these original notes are sent on to the goods station. If sender's consignment note contains goods for several stations, "extracts," or slip notes are made out by the receiving house-keepers, sent forward to the goods station, and the original amalgamated note is retained at the receiving house for reference.

The collecting vans are timed into the goods stations, and on arrival are backed up against an extensive unloading deck or platform, the carmen handing the consignment notes to the foreman appointed to receive them.

The foreman receiving the consignment notes distributes them to the unloading van checkers, who check the goods with the notes; and where the weights are not given by the receiving houses the packages are weighed as they are unloaded from the vans. Any discrepancies in the addresses or as to condition, are remarked on the notes. The notes are then passed to the "extract" office.

Each unloading gang is composed of a checker, "caller off," and three porters, who truck the goods to the respective loading posts which are indicated by conspicuously printed placards, and opposite which railway trucks are placed for conveyance of the goods to the different towns.

Goods for Liverpool, Manchester, Birmingham, and Irish and Scotch traffic are dealt with on a special bank, separately from the other traffic. The packages are trucked direct from the vans to the railway waggons, the consignment notes being sent down to the loading-up checkers at the loading posts, with the goods, which are then immediately put into the waggons.

For the guidance of the "extract" clerks in the case of tranship goods, the unloading checkers, when goods are trucked to a post for a station short of destination (for instance Abergele, goods to Chester post), insert upon the consignment note the name of the post or loading berth to which sent. The making of the extracts occupies four clerks.

All goods under mark have to be labelled. A small printed label ready gummed at the back is affixed. "From *London* to —



145," and thus the station to which the package is going

is known by the man who takes it away from the "post" to load.

All goods received unconsigned, the checker weighs the packages and makes out a slip consignment note with as much information upon it as is obtainable from the address card, namely, senders and

consignees' full names and addresses. He also remarks "off van number — from —." Should the goods be under mark, so that the destination cannot be ascertained, they are then sent to the downside "pound" to be subsequently claimed. A note describing the package is also made out with a remark "held for consignment off van number —," and the receiving house is communicated with next morning for instructions.

Where consignments consist of more than one article, the unloading van checker sees that the "caller off" marks upon each package the total number of articles in the consignment. Thus a consignment of six chests tea, the address card of each chest is marked with the number "six," so that the "loading up" checker at the station "post" may know when he has received the full number of the consignment from the "unloading" van checker.

On receipt of the consignment notes, the four "extract" clerks make out extracts or slip notes, where consignments for more than one station are entered upon the one note, reference being given to the original note on such extracts. Should there be more vans backed up to the unloading platform than the unloading van checkers can attend to at the time, the senders' notes are handed in to the "extract office" for extracting before the vans are actually unloaded.

The process of loading up is as follows—the notes and extracts are sent from the "extract office" to the loading-up checker at the loading "post," to where the goods have been trucked. This checker is responsible for checking the packages with the notes, and recording the station and number of the waggon into which he loads the goods. He should note any discrepancies in the addresses, or remarks as to the condition of the packages. The notes are initialed by the loading checker, who shows the time on the last note when the waggon was closed, as a guide to the invoicing clerks that the loading of the truck has been completed.

Should the loading-up checker find he has any goods without a note but yet fully addressed, he makes out a slip note, as far as the address on the goods will admit, giving full name and address of sender, consignee, description, "paid" or "to pay," with remark "found at — 'post' without account." Should goods under mark be found at a "post" without account, they are sent to the downside "pound," with a note, "found at — 'post.'"

The loading up gangs are composed of one checker, one porter, one loader, the latter standing in the truck to stow the goods to the best advantage.

The consignment notes are collected by a messenger, at frequent intervals, from the loading checkers, and conveyed to the invoice office. Notes for each waggon loaded are kept separate for facility of invoicing. Each clerk numbers his notes consecutively and inserts the corresponding number in the consignment note column of invoice. The invoices are numbered from a pro. book consecutively, taking the last running number to commence the night's work. The invoices are then copied and despatched by the appointed trains, or nailed on the waggons in which the goods are sent.

The consignment notes and extract slips are next morning gummed into skeleton guard books, in progressive order, for easy reference.

PLAN NO. 9—(LONDON).

The traffic forwarded from London is to a large extent collected by the company's carts from various docks, wharves, warehouses and wholesale firms, who forward goods regularly.

It is the custom of the carmen to receive with the goods a consignment note, and in cases where the same is not furnished, a note is prepared on the return of the carman to the station.

Near the entrance gate at the station is a small office occupied by one clerk, and the vans or carts as they come in stop at this office and the notes are handed in and are consecutively numbered and registered in a book. The entry consists of the sender's name and a consecutive number. The notes are then passed to a platform checker, whose duty it is to compare the contents of the van load of goods with the notes. The checker keeps a record of any discrepancy in a book provided for the purpose, such as goods addressed for A but entered on note for B, or goods for a town of which there are several of the same name and the name of the county is omitted. These discrepancies subsequently become the subject of inquiry with the senders; and whenever it is necessary, the goods are held back until the discrepancy has been enquired into and satisfactorily cleared up, the goods in the meantime being deposited in a lock-up warehouse.

The checker after checking the goods off the van on to the platform, places his initials upon the face of each note, inserting the time at which the load is checked off the van.

In most cases the goods are then trucked at once to the railway waggon and loaded, but for some of the trains that start later, the goods are sorted into heaps on the platform. This is because the platform will not contain sufficient railway waggons for all trains at the one time.

The porters trucking the goods from the vans to the railway trucks are guided partly by experience and partly by the labels on the trucks. There is no check at the waggon side, as the "check off" at the van side also answers for the loading check into the railway waggons. The loaders attached to the several waggons to stow the goods, are expected to examine the addresses on the goods and see that a package is not loaded into a wrong waggon.

At London the labels for the waggons are made out by one man whose special duty it is, and who is responsible for same.

The sheeting of the waggons is done by a separate gang of men whose sole duty is sheeting the waggons when the loading is completed.

The van checkers each afternoon are supplied with a list of the numbers of the waggons that are to be loaded for the different stations. When the checker has checked the articles off the van, he, from this list, puts on to the consignment note the waggon number into which the goods are to be loaded, so that the waggon numbers are put on to the

notes before the goods are actually loaded. A porter who assists the van checker weighs all goods that it may be necessary to weigh. If senders specify the weight on the notes the van checker does not require the packages to be weighed except he is doubtful of the correctness of the declared weight.

The consignment notes are then passed to the invoice office where the invoices are made, showing the name of sender, consignee's name, weight, rate, charges, and whether "paid" or "to pay." It sometimes happens that the goods are invoiced before the loading operation is completed, as there is nothing to prevent this occurring, one operation not being controlled by the other.

In addition to the goods so collected from the senders, a number of receiving offices are established throughout London. Some of these are conducted by the company with their own staff, and others, termed "auxiliary offices," are conducted by private parties, and are used as general receiving offices for the receipt of goods for all parts of the kingdom. Attached to the district in which the receiving offices are located are collecting carts or vans. Mainly one-horse vans are employed in collecting goods in the various streets—this applies to both the company's receiving offices and the general receiving offices. The carman in charge of the van obtains at the time of collecting the goods a consignment note from the senders, and upon reaching the receiving office the contents of these notes are transferred by the office-keeper to a printed "declaration and ticking-off sheet"—this also applies to both kinds of receiving offices. The office keeper retains for reference senders' original consignment notes. The "declaration" sheet contains ruled columns to be used by the platform checker as follows—ticking off column — station to — truck number — train — .

These "declaration" sheets are ruled with eighteen lines, and necessarily contain goods for mixed stations. It would thus appear that the goods under this plan cannot be checked, as the act of loading takes place at the railway waggon side, because the sheets cannot be split up in station order, for distribution among several loaders, according to the particular stations for which they load goods. This has to be met by the van checkers putting on the waggon numbers on the "declaration" sheets before the goods are actually placed in the railway waggons.

The goods, after being collected at the receiving houses, are placed upon the vans in full loads, and despatched from the receiving offices to the railway station, for the purpose of being forwarded by rail, in the same manner as goods collected direct from the senders' premises, as before described, the printed "declaration" sheets prepared by the office keeper being used at the station in lieu of the senders' original consignment notes.

Goods not addressed, but sent under mark, are usually labelled with a small printed adhesive label, which is put on by the van checker or his assistant at the time the goods are checked off the van. The label gives the name of sending station and also the destination of the goods.

In the forwarding of goods from the station, a truck is loaded, labelled and sent direct when there is sufficient weight. When there is not sufficient goods for one station to fairly occupy a truck, the goods for two or more stations are loaded into one truck, which is then termed a "station truck." The goods in these trucks have necessarily to be put out at the various stations as the train calls. A list of these goods for the guidance of the guards is prepared, called a "station truck list."

The consignment notes or printed forms supplied by the receiving offices after being duly checked and the railway waggon numbers inserted by the platform checker in the manner described, are passed to the office for the purpose of preparing the invoices. The notes are received by a clerk whose duty it is to sort them into districts, an invoice clerk being appointed for each section of the line whose duty it is to transcribe the particulars from the consignment note on to the invoices, carrying out the charge for carriage, totalling the invoice, and making it ready to be attached to the railway waggon by the time the train is ready for departure. The consignment notes are afterwards collected and each entry checked with a press copy of the invoice on the following morning.

PLAN No. 10—(LONDON).

COLLECTION.—The — railway company in London employ carmen and van guards, and possess horses and several descriptions of street waggons or vans and trollies, with which they collect every description of merchandise from all parts of London; and under certain circumstances, from places outside London's greater circle in the counties of Middlesex and Surrey.

Goods as collected are taken either direct to one of the company's London stations of which there are five, or, in the first instance to one of the company's receiving offices of which there are fourteen.

In different parts of London, other than at stations, the company have stables for horses, and sheds or yards for vans. These particular horses and vans are almost exclusively engaged during the greater part of the day in collecting goods and taking them to the receiving offices. Sometimes during the afternoon, and always after 6 p.m., they are engaged in conveying such goods to the company's London stations.

The company also work in connection with independent auxiliary receiving offices, where goods for the company's system are accumulated during the day, and the company's horses and vans collect such goods from such offices and take them to the company's stations.

There are twenty-nine such offices, and the proprietors of the offices are allowed by the company a commission for working in the interests of the company.

HOURS OF COLLECTION.—In common with other railway companies, the company cease to collect from senders' premises, wharves, docks, &c., at 4 p.m. Saturdays, 6 p.m. on other working days; and

from auxiliary receiving offices at 4.30 p.m. Saturdays, and 6.30 p.m. on other days. Collections can be resumed at any hour after midnight, but, in practice, 5 a.m. is as early as the company's horses and vans are called out for such service.

SENDERS' CONSIGNMENT NOTES.—These documents are retained for reference at all the receiving offices, and from such documents are prepared "declaration" or "ticking off" notes. These "decs.," as they are abbreviated, are the documents that are subsequently used at the stations to record the checking, weighing, trucking, and invoicing of the goods in their passage from the street van to the railway waggon.

The "decs." were rendered necessary, that the receiving offices might retain senders' notes, in case of dispute as to destination of goods, charges, date of delivery to the railway company, &c. It also suggested itself as a more suitable document to check, and from which to invoice, in preference to the irregularly shaped pieces of paper received from senders. But during recent years they have been made the means of classifying or sorting the consignments into train districts.

As far as practicable, each "dec." represents goods for one district, served by one or two trains.

There may be goods from several senders entered on one "dec." for one district, and goods from one sender may appear on several "decs.," because of for several districts.

(By the use of these "decs." the goods in loading can be checked only once, that is, on being unloaded off the street van. When goods for each separate station are entered on separate consignment notes, the goods can then, when necessary, be checked at the railway waggon door as loaded, and thus there is a second check. Seeing that the original consignment notes are copied, we should prefer to copy the goods for each station separately, on company's consignment notes, of one uniform convenient size, say 8 by 5 inches. By this arrangement there would be (1), the check off the street van, but in some cases where the goods were put straight into the railway waggon, a second check might not be necessary; (2), but when such direct loading could not be done, then the second check could be made available at the waggon door. This plan would also avoid the passage of the "decs.," backwards and forwards, between the invoice office and platform.)

If the goods are taken by senders direct to a station, the senders notes are pasted on to the company's "decs.," but if the senders make use of the company's specially printed consignment forms, such documents are used as shown above, instead of the "decs."

CARTAGE OF GOODS BY SENDERS.—Some senders cart their goods by their own vans or by those of hired carmen, direct to the company's stations, or to the receiving offices, or perhaps to those auxiliary offices working in connection with the company. The company have five other station yards, where goods carried at "station to station" rates, are accepted when carted in by senders.

Senders relieving the company of cartage work are allowed a "drawback" or "rebate," where the cost of the cartage work is embraced in the rate charged by the company for conveyance.

The company's own consignment forms as described above, are used for traffic delivered by senders at the company's stations.

HANDLING AND CHECKING GOODS AT RAILWAY STATIONS.—When the company's loaded vans reach a station, they are placed as quickly as possible against the various platforms reserved for "outwards" work, and adjacent to which platforms are trucks ranged in certain order for the several districts, served by the trains next due to leave London. There are sufficient trucks so placed at one time to form from one to five trains.

The "decs." of each load are timed, registered, numbered and lettered (the letter is used to indicate the day of the month). Amounts of paid on's recorded on such "decs." by the receiving offices as having been paid out, or other amounts paid by senders for the actual carriage of the goods are also registered. The totals of each kind of amounts are balanced the next day, and the receiving offices forthwith debited or credited. These totals fit in with the station balance sheet made out at the end of the month.

The "decs." or consignment notes are then taken to the chief foreman of the "outwards" work, and he, while keeping the "decs." of each van load together, sorts them out in such a manner that he can realize which loads contain goods for the trains first due away.

In the "outwards" platform there are gangs of men, each consisting of one checker, one "caller off," and two or three barrow runners. Their titles describe their duties. Directly a checker and his gang are disengaged, the chief foreman supplies the checker with the "decs." of one or more loads and gives suitable instructions as to which goods are to be taken off the vans, or whether the vans are to be entirely emptied. As fast as the vans are emptied they are removed from the platform to make room for other loaded vans when the platforms are not long enough to provide for all at one time.

A checker with a set of "decs." proceeds to the van containing the goods he requires for a particular group of stations. The goods are taken off the van by the caller off, and while weighing them on a movable weighing machine, he calls off the name and address of the consignee of each package. Then he calls off the weight, and any information not already shown on the "dec." is filled in by the checker. The caller off then places the article on the barrow of a "runner," and instructs the "runner" (who is an uniform porter or a supernumerary) into which truck, then standing in the shed, the goods are to be placed. If the article happens to be for a truck not already in the shed, the barrow runner is told to put it on the platform in a certain spot. These parts of the platform are known by various names according to the time of day or night, such as "Leeds place," "York table," &c., or by some local feature such as "opposite the clock," or "behind the iron rails." When the goods are taken direct to a truck the barrow runner brings back the number of the truck and the checker records the same on the "dec."

When goods are placed on the platform, the checker originally responsible has to see that such goods are placed in the appointed truck when it arrives in the shed road (at fixed times appointed and kept each night), and then he fills in the truck number on "dec." as proof of the package being loaded. There are exceptions to this rule in favour of certain trucks, and the foregoing method is modified to this extent, viz.:—instead of the original checker putting a truck number against the entry on "dec." he makes a cross within a circle (X)

which is a sign that he has placed the goods at the appointed part of the platform, and that another gang of men specially told off for the purpose will subsequently place the goods into the truck and will make a record of such in a book provided for the purpose.

All goods not addressed or marked, or goods under mark not loaded in a direct truck for destination are labelled by the checker concerned. These labels are printed and are adhesive and show sending and receiving station. These goods are invoiced as "not addressed" when such is the case, and when they are without distinguishing marks and numbers.

The checker enters on "decs." all goods received from a receiving office without an "office dec." He also records at once all discrepancies which are advised to the receiving offices.

LOADING.—A "loader" is appointed to a certain number of trucks, and his duty is to receive the goods from the barrow runners and put them into the trucks, in such a manner that they may suffer no damage by the ordinary transit of a goods train. It is the duty of the loader to select sheets suitable to cover the goods loaded in open trucks. He makes a record of the numbers of the trucks he loads and the numbers of the sheets he uses. The sheets, carefully folded, he places on the loads for the appointed sheet spreaders, who go in pairs to spread. Another set of men are subsequently engaged exclusively in tying the sheets after they have been properly spread.

WAGGON LABELLING.—For the most part waggons for loading are placed in the *same* order *regularly*—varying only according to the time of day or night—consequently the truck labeller knows to what station each truck has to be labelled, according to its position, and the time of day or night. Directly an empty truck is brought into the shed line the labeller affixes to it the proper labels. This is one of the most valuable features of the system now described, and applicable to a very large goods station.

But it may be here remarked that "special" waggons are placed for loading to meet an increase of traffic for a particular station, such waggons are specially looked after by a foreman who acquaints all the checkers of its position.

TRAIN MARSHALLING.—Nearly all trains are formed on lines adjacent to the loading shed. The loading ceases always at the same moment, and the trucks are then taken from the shed lines always at

the same time, and placed on a "departure" road in the order applicable for each particular train.

INVOICING.—Each "dec." partially or entirely checked is conveyed backwards and forwards, between the invoicing office and the checker (or the chief foreman), so long as there remains an entry on the "dec." that has neither a truck number nor a cross within a circle

(X) against it. A messenger is employed in collecting and distributing the "decs." in such manner.

When every entry is so marked off, the "dec." is retained in the invoicing office. When a "dec." reaches the invoicing office it is given to one of the clerks, whose duty it is to invoice for the next train leaving. The "decs." are passed from clerk to clerk, until all

the "trucked" or marked (X) entries are invoiced. An invoicing

clerk has to copy all particulars from "dec." on to the invoices, and then fill in the invoice the rates and charges. When an entry is marked with a cross within a circle, the invoicing clerk gets the truck number from a list supplied before the departure of each train by the labeller. Invoices when complete are passed to a clerk to number and record (for abstracting), thence to an office porter to press copy, thence to another clerk to enclose in envelopes or in leather bags bearing brass labels, thence to messengers who carry them to the guards of the trains by which the goods to which they refer are conveyed—or they are nailed on truck sides—or sent to the passenger station to be conveyed by passenger trains.

In the invoicing office are prepared "tranship bills" of goods loaded in trucks called road vans, which convey goods for various stations. Such goods have to be signed for on the tranship bills at the stations or junctions at which the goods are left off by the trains.

All "decs." and consignment notes are preserved in bundles. All tissue copies of invoices are pasted into skeletons.

These documents are ultimately stacked in large pigeon holes and racks in the "outwards" correspondence office.

The foregoing method of working is modified at the company's smaller London stations, while at the largest station there is a separate man for each duty, and at the smaller stations several duties, as described above, are undertaken by one man.

At one of the company's stations the invoicing is done at the truck side, the invoices are afterwards taken to the invoicing office, compared with the "decs." and the charges filled in.

LOADING.

It should be the duty of some person in the yard, before empty waggons are put into the loading platforms, to examine each waggon in respect to the following:—

- (1.) That the fastenings of the side doors or falling ends are in repair, and the doors can be securely fastened.

- (2.) That the inside flooring of each waggon, except in respect to dampness or warehouse dust, is in a fit condition to receive sundry goods (waggons that have been used for cattle should be cleaned in the yard).
- (3.) That there are no old labels attached to the waggons on either side.
- (4.) That all chalk marks, and particularly the names of stations, have been removed.
- (5.) That in the case of covered vans, if the roof or roof covers are not water-tight, the shed staff should be advised, so that a sheet may be put over the goods when loaded, either inside or outside, over the roof of the van. (Flour may be seriously damaged if a van with a defective roof is used for its conveyance).
- (6.) That the waggon is not marked for repairs.

The sweeping of waggons and providing of straw, sawdust, or shavings, usually rests with the loading staff. The loading checkers before putting goods into waggons, should be held responsible to examine them, to see that they are in a proper and fit state to receive the goods.

The time for loading the outward goods into waggons greatly depends upon the time when the goods can be obtained and are to be despatched. Generally waggons are loaded early in the evening, to be transmitted by trains during the night, so that the goods may be delivered the next morning to the consignees; but when sufficient goods have accumulated during the middle of the day to make waggon loads, let them be quickly loaded, and the waggons turned out into the yard. Thus the work will be advanced, platform space cleared, and the quantity of goods lessened, when it comes to the "push" late at night. It is a great easement when the outward goods can be carted in during the day time, and at once made up into full waggon loads; but when full loads cannot be made up, then the goods must be weighed and sorted into separate heaps on the platform, for each particular station or group of stations. Supposing the space will admit of this sorting into station order being done as the goods come in, then at the close of the day the loading checkers have merely to take the consignment notes for each heap (here is the advantage of having separate notes for goods for each station) and check the packages off the platform direct into the waggons.

By this mode of working, mistakes in sending goods away to wrong stations should be reduced to a minimum, seeing that the goods are twice checked—(1), from the cart to the platform; (2), from the heaps on the platform into the trucks. It must be admitted this entails some extra labour in twice handling, but at the same time, in the end it diminishes claims for goods being lost, wrongly sent, or delayed. At many stations the goods cannot be obtained from senders early enough for this plan to be carried out, and the programme has to be changed. It may be that the carts come in with the outward goods, perhaps between five and eight o'clock in the evening. The warehouse should be ready filled with empty trucks, but probably the

platform is a narrow one with insufficient space to sort the goods. The carter hands over the consignment notes to the checker who checks off the packages as they are unloaded and weighed. Now comes the objectionable part of this plan—as soon as the goods are weighed the checker or the weigher “calls off” the station to which the goods are to go; a porter puts the package on his hand-truck and away he goes to deposit it in the waggon some yards distant. It happens sometimes, that in the hurry and confusion incidental to handling the goods quickly, the porter gets a misconception into his head as to the intended destination, and hand-trucks the package into a wrong waggon. Knowing from practical experience that this often occurs, we contend that the consignment note should not be checked to indicate that the goods have been loaded until *the person checking it sees the packages pass into or actually deposited in the waggon*. If this rule were carried out strictly it would greatly reduce the claims for goods lost and wrongly sent. An agent, thinking over the matter, will readily see that the man who checks the consignment to show the goods have been loaded, should really see them put into the waggon. Any carting or loading arrangement or want of accommodation that jars with this being done requires amendment, as correctness should not be sacrificed to hurried despatch.

In loading from the heaps the loader should not use the consignment notes to find the goods, but rather select the heavy goods and then find the consignment notes for them. The former practice leads to unsuitable goods being loaded on the bottom of the waggon. The loader should examine the goods and pick out the heavy casks, cases or other heavy packages most eligible to stow on the floor of the waggon, and having found the notes to correspond, “check” and load same. The lighter goods may then be taken subsequently in the order of the notes, and carefully loaded on the top of the heavier packages. In this way damages may be avoided from violent shunting, where heavy goods, from being loaded uppermost, are sometimes thrown upon lighter goods.

When questioning the probability of a package having fallen off in transit, it is very useful to know whether the truck was high-sided, low-sided, or of what description. The shipping clerks or loading checkers should therefore note this information on the consignment notes when loading the goods, and it should be put on the invoice. The number-takers should also note the description of the waggons when taking the numbers.

A careful man should be chosen to stow goods in the waggons—one who has some idea of good packing or stowage; and either an old sailor or a navy pensioner is the best kind of man for this work. He must not be a man who will put a heavy package on a light one so as to crush the latter, nor neglect to scotch a cask so that it will become loose and possibly get staved during shunting. This loader should keep an account of the number of packages he loads in each waggon, and when the load is completed, enter on a loading slip provided for the purpose the number of the waggon and the total number of packages loaded. The loading slip should then be pinned to the

consignment notes of goods in each particular waggon and passed to the invoice clerk. When the invoice clerk adds up the number of packages on his invoice for each waggon, that number should agree with the number on the loading slip as counted by the loader; if it is found correct all is right, and the loader's slip can then be initialed by the invoice clerk and preserved. If, however, it is not correct, the invoice clerk, after going over the consignment notes again to prove his invoice correct should have the waggon unloaded, because something must have been either wrongly loaded or left out. With furniture this plan cannot well be carried out, neither does it afford a check when the error of "crossing" two packages in two trucks has occurred; nevertheless it is a plan that makes loaders careful, for if not, they will constantly have the extra labour of partly unloading waggons to correct blunders.

There should be no false economy as to using straw in waggons. Plenty of straw should be used in loading bales, packs, trusses and every kind of goods liable to get "chafed." If a roll of black cloth is "chafed" through several folds, the claim for the injury may be many pounds, while a few pence would possibly have purchased sufficient straw to have prevented the damage.

With covered vans the loading checker or some other suitable person should be made responsible to see that after the van is loaded, the doors are closed and the fastenings are made secure.

An agent should make his loaders economise waggons as much as possible, for even with the greatest care considerable loss arises in making up loads for waggons—(1), loading local waggons to foreign stations *with less than a ton* should be avoided, as the sending company then receives no mileage (except under Clearing House rule 79, edition 1883), when, provided the waggons contain as much as a ton of goods an allowance of one-eighth of a penny per ton is made; (2), it should be remembered that a foreign waggon loaded with not less than a ton can be sent to any foreign station without the infliction of the penalty for wrong sending, provided such waggon will pass over not less than twenty-five miles of the parent line, the parent company getting the mileage on the twenty-five miles, that being deemed equivalent to the waggon having reached home and having been again loaded foreign; (3), it should be borne in mind that foreign waggons received from the parent line with a ton or more of goods for transfer may be sent forward with not less than a ton of goods, but the Clearing House must be advised on the proper form, so as to explain the cause of the waggon being sent forward.

Some skill is needed in loading sundry goods into open waggons that require to be sheeted: the difficulty is lessened when there is a pretty full load, because there will then be sufficient goods to pile up in the centre of the waggon to make a fall to facilitate the rain draining off on to the ground; but even when there are sufficient goods, unless some are heavy, a difficulty will still arise, because a number of light articles will not remain in a pyramidal form if the shunting is severe. Where the quantity of goods is small and they cannot be elevated sufficiently in the waggon, the better plan is to

spread the sheet out on the floor of the waggon and wrap the goods in the sheet. Sheets should be closely examined to see that they are in good repair, and all hollows should be avoided in the spreading of the sheet over the load.

In loading box or covered waggons the loader sometimes commences to stow the goods from the two ends of the waggon, piling up the articles one on top of the other, and then not having sufficient goods to fill up the centre, the waggon thus loaded is closed up and allowed to go forward. The first heavy shunt that occurs throws the topmost packages from the two ends into the centre of the waggon, and breakage and leakage is pretty certain to be the consequence. Loads in covered waggons should be levelled equally over the waggon before despatch. This practice often prevails where a second row of waggons are loaded by the aid of loading boards through other waggons, and the first row of waggons have to afford a passage through their centres for goods to be hand-trucked through them.

The question of overloading waggons is very serious. The carriage and waggon department of each company usually mark on each waggon the number of tons it can safely carry, and it is then at the peril of the traffic men if a greater weight is put into a waggon than it is marked to carry. Each company party to through booking is responsible to paint upon all its waggons used for through traffic the particular weight each waggon is able to carry, and any company loading a foreign waggon beyond the carrying capacity marked upon it, is liable for any damage or loss arising therefrom. Iron, timber and station to station goods that are loaded by senders mostly afford instances where waggons are overloaded, hence a sharp look-out should be kept upon the loading of traffic of this kind. If the springs of an overloaded waggon give way on the journey, perhaps in the middle of the train, the chances are that a number of other waggons will be thrown off the line at the same time. Some of these waggons may be thrown across the second line of rails, and in a few minutes after a passenger train may be approaching on the second line of rails. The driver may not see the obstruction or he may not be able to pull up his train, and a collision then takes place, when, perhaps, lives are lost. All this may have been brought about by a greedy trader overloading the waggon, and scheming to get a greater weight carried than that for which he intends to pay. The agent would, of course, be held amenable for allowing the excess weight to be loaded and for not exercising a check to prevent the waggon having been sent off. The guard would be also blameable for taking on a waggon overloaded. A tight rein, as to overloading waggons, should be kept upon all loaders and checkers, but particularly upon those who count and check station to station goods, whether such waggons may be loaded in the shed or outside in the yard.

When two or three waggons are being loaded for one station, it is advisable, as far as possible, to put the several packages comprising a complete consignment into the one waggon. It facilitates the invoice checking at the receiving station to do this. Exceptions to this rule, however, may be made when a consignment consists of goods different

in kind or bulk. Sometimes it is best to sort out and put the heavy goods, or the rough goods into one waggon, and the lighter and more valuable goods into the other waggons. In doing this consignments may necessarily have to be split and separated.

In looking along a goods train an agent may observe a waggon with the springs at one end very depressed, while the springs at the other end show little or no depression. This generally indicates that the weight of the load has not been equally distributed over the floor of the waggon. Such loading is likely to cause the wheels of the waggon to leave the rails and cause an accident. Loaders should be punished when they load waggons in this form. Occasionally old waggons that are much worn and that have defects will appear to be unevenly loaded, but an examination of the load will soon bring the matter to proof.

Some waggons have been unwisely constructed with nuts, bolts or rivets projecting beyond the level surface of the wood, forming the insides and ends of waggons; thus when a waggon is closely packed with goods, which in a general way contributes to the safe transit of the goods, the nuts cause bales of cloth, drapery and other goods to be "chafed." Nuts, bolts or rivets should be counter-sunk or covered with suitable wooden caps. All damages arising from exposed nuts, bolts or rivets inside waggons should be charged in the half yearly accounts to the carriage and waggon department, by reason of faulty construction, and the evil would soon cease.

Large casks and others that cannot be put on their ends must be *stowed with the bungs up*, and tightly scotched with straw wads or wooden scotches made for the purpose. Stones or bricks are unsafe; we have seen puncheons of whiskey scotched with stones, where, from the cask having been loaded crossways in the waggon, the stone scotches became loose, and the staves from the continual oscillation have been nearly cut through by the friction against the edges of the stones. As a rule load all casks lengthways in the waggon when the casks cannot be put upon their ends.

The North-Eastern and Great Northern Companies have adopted the following rule or instruction in respect to loading crates of glass; and seeing that it is so clearly worded, we cannot do better than quote it verbatim:—

"Crates of glass must always stand upon their feet and not on their ends or sides. One crate must not be placed on the top of another *under any circumstances*. No other goods must be loaded on the top of crates of glass. Packages containing glass are generally marked 'this side up,' this direction must be carefully attended to. In removing crates and cases of glass they must not be dragged along the ground, or placed sideways on a barrow (hand-truck), or rolled end over end or set down with a jerk, or allowed to fall suddenly, though but an inch from the ground; but they must be carried by two or more persons with care and set down gently. It is necessary that there should be no pressure on the sides of the packages, and that in lifting and moving them they be taken hold of by the ends. In loading crates of glass they must be placed close together (in the

waggon) and firmly secured, with no space allowed for them to move in shunting; and they must always stand *lengthways* and not *across* the waggon. Casks or other articles liable to roll, must not be placed near crates of glass."

There is a loss in handling "station to station" goods across goods platforms, as the terminal expense allowed in the division of the through traffic for loading is only one shilling and sixpence per ton, whereas upon carted goods it is four shillings per ton. When the term of loading is applied to "station to station" goods, it is meant the counting of the number of packages, as the rates do not include loading or unloading, owing to the sender and consignee performing that service. The loader, for the company's protection, merely counts the number of packages and sees they are in good condition, but while he is doing this he can as well assist as stand idle. Timber, boilers, and the like, the senders are expected to load without any assistance.

Therefore, when loading "station to station" goods, do not ordinarily allow them to be loaded across the shed platform, unless when having to weigh them, or otherwise, as it usually saves labour, time, and space to load them in the yard direct from the cart into the railway waggon. As a check upon the count, when goods are loaded outside, it is useful to have a loader's book. Let a clerk enter into this book the particulars from the consignment note, giving the consignee's name, the station destination of the waggon, the marks, and every necessary particular, *except the number of packages*. Keep that information from the loader and leave it blank in his book. Then let him have the book and a couple of waggon labels made out, and direct him, when he has counted and loaded the goods, to put the labels on the waggons and fill into his book the number of packages he has actually loaded, the truck and sheet number, and his signature. The clerk or checker then compares the loader's account of the number of packages loaded with the number on the consignment note, and any error that may be discovered must be rectified, even if necessary by unloading the waggon and re-counting the packages. If everything is found correct the clerk then enters the waggon number on to the consignment note and passes the note forward to be invoiced. This plan is in force at Liverpool (L. & Y.) in loading bales of cotton in waggon loads, and is equally applicable for any "station to station" traffic in full loads. The size of the book is 6½ by 4½ inches, stitched at the end to open like a note book.

Senders when loading "station to station" goods will often, if not checked, commence to load a waggon late of an afternoon, when they well know that they cannot complete the load that same night to enable the waggon to be despatched. In such cases an agent, after, say one caution, should charge three shillings per day demurrage; and if not collectable from the sender he should charge the amount as "paid on" and "to pay" upon the goods, explaining on the face of the invoice why the "paid on" charge has been made.

Grain, flour, meal, rice and such like traffic in sacks, should be loaded with the mouths of the sacks turned towards the centre of the waggon. If the mouth of a sack that is loosely tied opens, and the mouth is towards the door of the waggon, the grain will then run out, and when the waggon door is opened the grain will be scattered and lost, or damaged from being mixed with dirt.

In loading hay and straw which is not press-packed, it should be remembered that as the load is built up in height, truss by truss, there is an increased pressure upon the lower portion of the load. This pressure causes the load to bulge at the sides which may go to an extent of exceeding the safety gauge. To avoid this difficulty an allowance should be made, so that the spreading of the load from top-weight may not exceed the gauge in width.

The Lancashire and Yorkshire Company print the following instructions to their staff in respect to loading heavy and bulky articles, and we think we cannot do better than quote it verbatim:—

"Old or second-hand machinery, or looms and large castings, or other heavy and bulky goods of an unusually risky character must be specially seen and inspected by the agent or foreman, before being received by the company, and experienced and careful men appointed to the duty of collecting, handling or loading. At small stations where experienced loaders or delivery men cannot be kept, the agent or foreman must personally superintend the work, and before commencing to load or unload such traffic, must satisfy himself that the crane, crane chain, buckling chain, rope, or chain-sling (if any of these articles are used) are in good working order. He must also see that he has at hand a supply of straw wads and wooden scotches, or other suitable packing in case any are required. Spring-buffer waggons must, as far as possible, be selected for this traffic. Machines complete and in working order must not be accepted for conveyance unprotected, unless the agent is of opinion they are sufficiently strong to bear safely the ordinary usage in collection, loading and transit. Great care must be taken in slinging pieces of machinery, looms, &c., so that they may not, by being overbalanced in the slings or hung by their weak parts, fall to the ground; neither must such articles be lifted by cranes when the cranes are out of perpendicular reach of the lifting chains, as the sway motion then frequently causes the articles to be broken or damaged. Old or second-hand weaving or spinning machinery unpacked is only to be accepted for conveyance when consigned at 'owner's risk.'"

Round or baulk timber, sawn boards, girders, pitwood, deals, rails, iron, &c., when in lengths in excess of the length of a waggon, ought

not to be loaded in other than timber waggons with bolsters. If, however, loaded on two low-sided waggons, even with falling ends, with the weight bearing on both, the waggons should not be so tightly coupled together that the buffers will have insufficient play when passing round sharp curves, for the consequence might then be that one or both waggons may leave the rails and perhaps cause a serious accident. When, however, the weight is not in excess of what one waggon can carry, the load should be so built that the one waggon may carry all the weight, and a second or third waggon can then be used as "check" waggons, over which the long lengths of timber or other goods can extend. Such loads of timber require to be made compact, by being lashed round several times with either ropes or chains, according to their weight and liability to shift in transit. With some loads, even on timber waggons, the tightening of the chains attached to the bolsters is not sufficient, and additional chains require to be passed round the timber (or railway rails, when such is the load) several times, to produce compactness and avoid the chance of some of the load falling off on the journey. With long articles of light weight and small value, as ladders, timber, &c., carried at the computed weight of one ton per waggon, it saves disputes to require the carriage to be prepaid, unless the sender gives a written guarantee to pay the carriage provided the consignee objects to do so.

When the timber is in the form of boards, if the sender has not distinguished bundles of boards from loose boards, the loader should supplement such information on the consignment note, otherwise there will be confusion in the count at the receiving station. In cases where small lots of boards or other timber for different consignees are loaded in the same waggon, a distinguishing mark in chalk should be put upon each lot, so as to prevent cross deliveries, and furthermore, the lots should be loaded as far apart as possible in the waggon.

The same remarks apply in loading small lots of iron which should be distinguished by one or more crosses of red paint. These marks should be put on the consignment note, and also upon the invoice, to guide the delivery checkers at the receiving station and prevent "cross" deliveries.

In loading and unloading timber, whether round timber or otherwise if not carried at a waggon load rate, the number of pieces should be counted and shown on the invoice as well as the number of feet. The measuring of round timber is a somewhat difficult process to procure the true dead weight, for if two persons measure one lot of timber they will most likely disagree in their calculation, particularly if one takes the measure with string and the other with a tape. Directions are given in the classification as to measuring timber, and hence it is not necessary to repeat the same information here. The following table and directions for measuring may, however, be found useful:—

Name of Wood.	Specific Gravity.	Weight per Cubic Foot in Pounds.	No. of Cubic Feet per Ton.
Apple, - - -	·786	49	45·7
Ash, - - -	·760	52	43·0
Beech, - - -	·696	53	42·2
Birch, - - -	·711	42	53·3
Box, - - -	·914	57	39·3
Cedar of Lebanon, -	·561	85	64·0
„ Spanish, -	·481	80	74·6
Cherry, - - -	·673	42	53·3
Chestnut, - - -	·593	37	60·5
Cork, - - -	·240	15	149·3
Ebony, - - -	1·010	68	35·5
Elder, - - -	·673	42	53·3
Elm, - - -	·579	42	53·3
Poplar, - - -	·885	24	93·3
Sycamore, - - -	·609	38	58·9
Teak, - - -	·729	47	47·6
Fir, Common, -	·772	31	72·2
„ Memel, -	·601	37	60·5
Hazel, - - -	·641	40	56·0
Hornbeam, - - -	·770	48	46·6
Larch, - - -	·505	33	67·9
Lignum Vita, -	1·122	70	32·0
Mahogany, Spanish,	1·056	66	33·9
Maple, - - -	·754	47	47·6
Oak, American, -	·720	45	50·8
„ English, -	·829	53	42·2
Pine, Yellow, -	·508	28	86·1
„ Red, - - -	·576	40	56·0
„ Pitch, - - -	·740	45	50·8
Walnut, - - -	·659	41	54·6
Willow, - - -	·481	30	74·6
Yew, - - -	·802	47	47·6

The following examples in measuring round timber are taken from *Grandy's Timber Merchants' Guide*, page 97. Published by Crosby, Lockwood & Co., London.

Round timber is measured by allowing “one-fourth” of mean circumference as square of length. A due allowance must be made for bark, say 1 inch at 3 inches off girth, according to the thickness.

Example 1.—One piece of round timber 40 feet long, mean girth, allowing for bark 36 inches. The fourth of girth equals 9 inches, hence the measurement stands 40 feet \times 9 inches \times 9 inches = $22\frac{1}{2}$ cubic feet.

Example 2.—One piece of timber 30 feet long:

allowing for bark 44 inches girth at top.

$$\begin{array}{r}
 \text{2 girths} \quad \text{2} \overline{)98} \\
 \underline{4)49} = \text{mean girth.} \\
 \underline{12\frac{1}{2}} = \text{square.}
 \end{array}$$

30 feet \times $12\frac{1}{2}$ inches \times $12\frac{1}{2}$ inches = $31\frac{1}{2}$ cubic feet = contents.

Example 3.—One piece timber 40 feet long:

$$\begin{array}{rcl}
 \text{allowing for bark } 84 \text{ inches} & = & \text{girth at top.} \\
 86 & \text{"} & = \text{" middle} \\
 48 & \text{"} & = \text{" butt.} \\
 \hline
 3 \text{ girths} & 3)110 & \\
 & 4)36\frac{1}{2} & = \text{mean girth.} \\
 & 9\frac{1}{8} & = \text{mean square.}
 \end{array}$$

40 feet \times $9\frac{1}{8}$ inches \times $9\frac{1}{8}$ inches = 23 cubic feet.

The above are the established "trade rules" for measurement of round timber. To find "true contents" take $\frac{1}{2}$ of mean circumference as square and double the length of tree.

Example.—One piece of timber 40 feet long, 35 inches mean circumference

$$\begin{array}{rcl}
 40 \text{ inches.} \\
 5)35 & \text{"} & = \text{mean circumference.} \\
 7 & \text{"} & = \text{square.}
 \end{array}$$

Double length 80 feet \times 7 inches \times 7 inches = $27\frac{1}{2}$ cubic feet nearly. This method gives within $\frac{1}{4}$ per cent. of truth.

On one occasion, arising out of a law suit, we had blocks cut and weighed of several kinds of timber, each a cubic foot. The wood was not exactly green nor was it old-seasoned, hence the condition forms a fair average. The ash was found to weigh fifty-seven pounds, the beech sixty-six pounds, the elm fifty-three pounds, and the oak seventy-four pounds per cubic foot. This it must be recollected was Irish timber, and the Irish timber, from more moisture of climate, is said to weigh heavier than English timber. In cases of dispute or difficulty it is always a simple matter to have a cubic foot of timber cut from any particular consignment and take the actual weight. This, however, still does not get rid of the difficulty of measurement.

With sawn timber of short and long lengths, if a good secure bottom is made with the longer lengths extended upon the bolsters of the timber waggons, then the short and long lengths may be mixed and built up, interlaced one with the other. This, however, cannot be done with round timber or articles that are not in evenly cut forms, convenient to fit in and bind up together uniformly with ropes or chains.

In all cases of loading articles of great length requiring more than two waggons, the *entire weight* should rest upon the bolsters of the two end waggons, and the "check" waggons between, unless bolster waggons, should bear no weight or there will be a difficulty in the several waggons going round sharp curves.

Sometimes three timber waggons are used for a load of timber, and as timber waggons are generally used in pairs, this proves subsequently inconvenient. To bring the odd timber waggons together again there should be a *dépôt* station on the line to which all single timber waggons can be sent, so that they may be brought together again in pairs.

The loading of dangerous goods is provided for in the Clearing House classification, and it is not necessary to treat of it here. Some

companies load petroleum in waggons separately from all other goods. To economise waggons, it is sometimes the practice to only receive matches, petroleum, gunpowder and other dangerous goods on two days a week, and then use specially constructed waggons for the conveyance of same.

"LEFT-OVER" GOODS BOOK.—After the "loading up" of the waggons has been brought to a close for the night, there are often "waifs and strays," or odd packages for remote towns left unloaded. There being no waggons for particular towns, certain packages for certain towns have either to be kept over until the next day, or sent on as "tranships." In many cases such odd packages have been overlooked, or have been sorted into the wrong heap, and when found, the waggon into which they should have been loaded, has been closed and shunted out into the yard. The "waifs and stray" packages, and their incidental delay gives rise to subsequent correspondence, and often bitter complaints and even occasionally to claims. It is therefore of importance to provide some check to keep them ever present in the loading foreman's mind, to prevent a further possible one or two days' delay from oversight.

It is therefore of importance to keep a book for "left off" goods, and insist upon its being kept up by the loading foreman, and let some responsible clerk, if not the agent himself, inspect it every morning to see if any packages by accident remain unforwarded beyond one day.

In some cases "left off" goods are duly invoiced, and then sent on the following day without any invoice or entry. This causes confusion, and therefore when consignments are unavoidably split, slip-notes to be used by invoice clerks should be made for "left off" goods. From these slip-notes the goods should be entered on to the proper invoice with the remark "left off yesterday, part of lot, see invoice so and so."

Many companies direct their station agents not to accept certain dangerous and bulky articles, and that the same are only carried by *special contract* as arranged by the officer of the district. The following is the list quoted to agents by the Manchester, Sheffield and Lincolnshire Company:—"locomotive engines and tenders—railway carriages and waggons not on their own wheels—boilers—castings—or other articles above four tons per single piece—gold and silver plate—bullion—paintings (i.e., large and declared as of considerable value)—timber or other articles above forty-five feet long—gunpowder—vitriol—ardent spirit and similar combustible articles." To these may be added large mirrors—gasoline—ether and naphtha. The classification specifies a list of articles not to be carried under any circumstances.

In most warehouses or station yards there is a gauge to regulate the height of waggon loads. When this is not the case an agent should require one to be erected to prevent the loaders loading goods too high, such goods as large mirrors, large pictures, portable engines, life boats, furniture vans (furniture vans when empty will be higher than when full, because when full the weight will depress the springs of both the van and the railway waggon), bags of wool, bales of cotton,

pockets of hops, boilers, threshing machines, traction engines and agricultural machines.

The Clearing House classification book gives the height and width of the load on each line of railway according to the dimensions of the bridges that have to be passed. The width of the load, however, is only given from the estimated flooring of waggons, namely 3 feet 6 inches, therefore when low trollies with a flooring below 3 feet 6 inches from the rails are used for heavy articles, the load must not project at the sides beyond the width of the trolley.

Railway companies are not by law forced to become common carriers of coal, and hence can decline to carry coal except upon special conditions such as the following:—

- (1.) That they will only convey the coal when they have empty waggons available.
- (2.) That the carriage must be prepaid.
- (3.) That the conveyance may be limited to train loads only.
- (4.) That the weight shall be short weight, or 20 cwt. to the ton, and not long weight, 120 lbs. to the cwt.
- (5.) That three shillings per day per waggon for demurrage will be enforced when company's waggons are used and detained.
- (6.) That sixpence per day siding accommodation shall be paid when senders' waggons remain beyond a fixed time at either the forwarding or receiving station, impeding the company's work.
- (7.) That company's waggons are liable to demurrage if detained more than one day in being loaded, and two days in being unloaded.

At seaports, owing to the growing use of steam colliers, railway companies are often requested to supply waggons for several hundred tons of coal, so that the steamers may be unloaded in twelve or twenty-four hours. The appliances and number of men for clearing the steamer is far in excess of the carts and men at the receiving station for clearing the company's waggons, thus waggons may be three, four, five or six days standing loaded with coal. The infliction of large sums for demurrage cripples the trade, and therefore the only remedy is for the coal to be unloaded out of the steamers on to the wharf instead of into railway waggons, and then so many waggons of coal can be loaded up each day in accordance with consignee's means of moving the coal out of the waggons at the receiving station.

THE VARIOUS DESCRIPTION OF APPLIANCES IN USE FOR LIFTING AND LOADING GOODS.

APPLIANCES.	USE.
Chain hooks and chain slings, - - - }	For lifting heavy casks and cases.
Rope slings, - - -	„ „ light „ „
Can hooks (chain and rope),	„ casks to grab chine.
Chain or rope grabs, - -	„ bales, wool and cotton.

APPLIANCES.				USE.
Dog hooks,	-	-	-	For timber.
Bale	"	-	-	" bales.
Cotton	;	-	-	" bales of cotton.
Crate	"	-	-	" crates.
Lead	"	-	-	" rolls of lead.
Nipper	"	-	-	" general use.
Wool	"	-	-	" wool.
Hand	"	-	-	{ " general use, except bale goods, trusses and drapery.

GOODS THAT REQUIRE TO BE LIFTED WITH CRANES BY THE AID OF "SLINGS."

NOTE.—When bales or packages are hooped with iron, the hook of the crane chain should never be put under the hoops.

Heavy ornamental grates.	Large cases of marble.
Large mirrors.	" " statuary.
Heavy trusses and bales	" " monumental tombs.
Large pictures.	

GOODS THAT, FROM THEIR FRAGILE NATURE, REQUIRE SPECIAL CARE IN HANDLING AND LOADING, AND A PLENTIFUL SUPPLY OF STRAW IN PACKING IN THE WAGGON.

Light castings generally.	Three-legged pots and covers.
Eaves and gutters.	Kitchen ranges.
Kitchen boilers.	Common grates.
Stoves.	Ornamental grates (not in cases).

GOODS OF A LIKE KIND IN SEPARATE SMALL CONSIGNMENTS LOADED IN ONE WAGGON, REQUIRE TO BE SEPARATED, OR LABELLED, OR MARKED, EITHER BY THE SENDER OR THE LOADER, WITH RED-RADDLE, PAINT, OR IN SOME WAY MADE DISTINGUISHABLE TO AVOID CROSS DELIVERIES.

Flour.	Bags of rags.
Oatmeal.	" waste.
Iron bars.	Grain of all kinds.
Loose earthenware.	Bran.
Paving tiles.	Ale and porter.
Drain pipes.	Bundles of plants.
Slates.	Spokes.
Yarns (loose).	Cheese.
Bundles of cloth or yarn.	Half finished linens.
Baskets of fruit or vegetables.	Piece goods.

THE FOLLOWING KINDS OF TRAFFIC ARE BETTER LOADED IN OPEN WAGGONS, WHEN THAT IS PRACTICABLE, BECAUSE OPEN WAGGONS ARE LESS FREQUENTLY USED FOR THE KINDS OF GOODS LIABLE TO DAMAGE FROM THE DÉBRIS OR EFFLUVIA OR LEAKAGE OF THE UNDERMENTIONED.

Coal.	Coke.
Bricks.	Manure, loose and packed.
Salt.	Potatoes.
Nitrate of soda.	Creosote.
Creosoted sleepers.	Naphtha and gasoline.
Paraffin oil.	Petroleum.
Tar.	Acids.
Herrings in brine.	Treacle in casks.
Tobacco water (sheep wash).	

DESCRIPTIONS OF GOODS THAT SHOULD NOT BE LOADED IN OTHER THAN SPRING-BUFFER WAGGONS.

Pianos and other musical instruments.	Casks of sheep wash.
Casks of oil.	„ treacle.
„ wine.	Cases of wine and spirits.
„ spirits.	„ oil.
„ turpentine.	Tins of oil.
	Jars of wines and spirits.

INCOMPATIBLES.—GOODS THAT, IF LOADED TOGETHER, ARE LIKELY TO DAMAGE EACH OTHER BY CONTACT, ALSO GOODS, THE EFFLUVIA FROM WHICH, IF LEFT IN A WAGGON, IS LIKELY TO TAINT AND DAMAGE OTHER KINDS OF GOODS THAT MAY BE SUBSEQUENTLY PUT INTO SAME WAGGON.

Goods having damaging properties.

Naphtha in casks and jars.	Herrings loose.
„ in tins and carboys.	„ half salted or corned.
Vitriol in carboys.	Guano.
Oils of all kinds.	Grains wet, in casks or bags.
Nitrate of soda.	Super-phosphate.
Paraffin and petroleum.	Hides, wet and dry.
Creosote.	Ice.
„ sleepers.	Bones, loose or in bags.
Tar.	Offal in casks or bags.
Acids.	Turpentine in casks, tins or jars.
Sheep wash and tobacco water.	Vinegar.
Barm, fresh, in casks.	Common salt (death to pigs).
Herrings in brine.	

Goods specially liable to damage from contact or effluvia.

Tea.	Milk.
Flour and meal.	Sugar in bags and casks.
Fruit (ripe).	„ titlers and loaves.
Potatoes.	Cheese.
Drapery packs.	Biscuits.
Millinery in boxes and trunks.	

LOADING TRANSHIPS.—There are two classes of tranships to be handled—(1) odd packages of goods loaded as tranships to a station, there to be re-loaded, if possible, into through waggons going to the stations for which the tranships are addressed; (2) odd packages of goods accepted for conveyance at the *original* forwarding station for towns to which there are no through waggons on the particular day of acceptance.

As the tranship packages are unloaded from other stations they have to be checked out of the waggons from the invoices that accompany them, the same as inwards goods, and the condition and number scrutinised. All discrepancies or damage, when such is discovered, must be remarked on the through invoice in ink, and the name of the station given. This is to enable it to be seen between what points any loss or damage *may have* taken place. The packages, if it be convenient at the time, can be hand-trucked direct into through waggons, but if there are no through waggons going to the particular stations the packages must then be sorted into heaps on the platform and clubbed with the local goods or tranship packages originating at the unloading station.

The receivers and loading clerks, as the goods are accepted from senders and the destination towns seen from the addresses, know at once from practice if such packages can be loaded through, and the packages must then be hand-trucked to the respective tranship heap or heaps on the platform. Either during the process of loading or after most of the loading work is over, tranship waggons are “made-up” to go to certain stations that are “centres” for tranship. Goods are sent to such “centre” stations from perhaps a group of fifty small stations within a certain radius. The clubbing together of the odd packages from the district at these “centre” stations generally admits of through waggons being made-up there, and when not, then the goods have again to be sent on for transshipment to another “centre” station located nearer to the final destination. It is pretty certain as the tranships arrive nearer to their final destination a through waggon will be found available.

There are still another class of tranships termed “road tranships.” These are usually tranships for very small stations, to which very few waggons are sent. Some of the preceding mentioned tranships before reaching their final destination, which is possibly on a branch line, may become “road tranships.” A “road” van is put on a particular goods train each day, into which these tranships are loaded, and the guard then puts out these small odd packages at each station on the journey as he goes along. The original through

invoice should accompany the guard, and in addition the package should be entered on a Guard's Tranship Road Bill, which forms a guide to the guard to correctly put out the tranships. This Guard's Tranship Bill should be press-copied at the starting station in a tissue book provided for the purpose, just the same as an invoice. The guard should obtain a receipt in ink or blue copying pencil, on his bill at each station for the packages he puts out and delivers. To facilitate the guard getting the packages quickly out of the van, the packages for the farthest stations should, as far as possible, be loaded on the floor of the waggon, and those for the nearest stations on top. At the end of the journey this Tranship Bill should be sent to headquarters, where it should be scrutinised to see that proper signatures in ink or blue copying pencil have been obtained. Guards often over-carry tranships, and in all such cases they should be taken sharply to task.

A proper tranship invoice book should be kept at each station, and a copy taken of all invoices of goods transhipped at such station. Any observations as to discrepancies or damage that may be remarked on the through invoice should be carefully copied into the tranship invoice book, and the record should also show the exact time and date the goods were received and forwarded, also the number of the waggon in which they arrived and departed. The chief invoice clerk should see that this is faithfully done day by day.

Stations regularly dealing with tranships should be supplied with a square stamp to be used on tranship invoices, showing as follows, "transhipped at — station," with a place for the date, waggon number and owner.

The great art in loading tranships so as to hasten their arrival at final destination is a knowledge by the loaders at each station as to the particular stations to which the "centre" stations are likely to load waggons each night, then the selection of the best "centre" station to which the tranships should be sent becomes an easy matter. We doubt very much whether, in the majority of cases, sufficient information is diffused among the smaller stations by circular as to what are the daily operations of the "centre" stations in respect to the towns to which they are enabled to regularly load through waggons.

If a proper scrutiny is exercised at the "centre" stations warning the district stations when goods are wrongly sent for tranship, the district stations will mend their ways and, by degrees, the tranships will get clubbed at the right "centre" stations.

Care should be taken to address the invoice for the goods to the transshipping station, and show on the invoice the name of the transshipping station.

To prevent a company having to participate in claims for loss and damage to "transhipped" goods, it is necessary that all tranships should be carefully inspected when unloaded and reloaded at the transshipping station. All packages damaged, or packages containing tea, tobacco, spirits, &c., should be carefully weighed with great exactness and the weights noted in the tranship book, and, when

necessary, the customary advices sent to sending station and last transshipping station, if the goods have been previously transhipped. Casks leaking, or casks with loose hoops should be coopered, and any packages unfit to travel repaired.

Unaddressed goods, or goods under mark, when loaded to intermediate stations as transfers, should bear "tranship labels," showing names of forwarding and receiving stations—such labels should be affixed by the forwarding station. Supposing a package of this description is found on the platform of a transshipping station, and all trace has been lost of the number of the waggon from which it was taken, the package then becomes "lost," until an inquiry shall have been made by the forwarding station, because the destination of the package cannot be ascertained, and this may occasion a week's delay.

Transshipping stations are responsible for issuing circulars and tracing goods that are missing and which were last forwarded from them. The agent at the original sending station should, if necessary, force the agent at the transshipping station to perform the duty, and if there is any procrastination, urge him by quoting the Clearing House Rule, and, if necessary, report any neglect to the Goods Manager.

When loads on waggons in transit are found to have shifted and become dangerous, the guard should shunt off the waggons from his train at the first station he comes to after the discovery of the mischief. The load should be adjusted at the station, and, if necessary, the waggon entirely reloaded as quickly as possible, and the forwarding and receiving stations advised so as to explain the cause of the increased time occupied in transit. The same action should be taken even when the waggons belong to private traders, as understood by the term "private waggons."

If crown vans containing transit goods under bond and under customs lock are disabled or damaged in an accident, a special watchman should be put over the waggon and goods, and a telegram sent at once to the nearest large town to the Controller of Customs to send an officer at once to take charge of the goods. If the goods should be robbed, the company may be held liable to the Government for the duty payable upon the stolen goods, besides liable to the owner of the goods for their value.

LABELLING WAGGONS.—Although at first sight this may appear a trifling matter, it is indeed one of the very first importance, for so much depends upon it. A waggon wrongly labelled is like a letter erroneously addressed—it is sent to a wrong destination. We prefer to make the checker loading the goods the responsible person to make out the label for each waggon he loads. The label, when not printed, should be written in large legible letters, as guards of trains who move the waggons are not always first class scholars. The label should show the route the waggon is to travel, and the station to which it is to go should be written in full and not abbreviated, or the waggon may be missent. It is proper to give the initials of the line the station is upon. Labels are sometimes very carelessly affixed

with only one or two tacks, which results in the rain finding a lodgment behind the label, and, by soaking into the paper, softening it, when the wind blows the label off. Of late years a process has been discovered of making paper waterproof, and it would be of great importance if a paper of this kind were used generally for waggon labels. Let a label have four tacks at the corners and one in the middle and it will then be firm, unless where a waggon has a label frame, and even then, unless the label fits into the frame securely, one tack through the centre is of service. Every waggon should have a label on both sides, for this simple reason that a guard during his journey, when running up either side of his train, may see the destinations of his waggons. A waggon should not be labelled to a station beyond the station to which the goods are invoiced, except in the case of cattle, which see.

With many kinds of "station to station" traffic in full loads, as coal, grain, potatoes, hay, straw, cotton, &c., it is a safety plan to write the consignee's name on the front or back of the waggon label; then, should the invoice miscarry no delay need arise at the receiving station in delivering the goods to the consignee, and taking a deposit for the carriage when necessary.

Special large sized labels should be used for "perishables," such as meat, fish, dead poultry, fruit, or the like. A particular kind of label should also be used to distinguish petroleum, gunpowder and other dangerous goods.

SHEETING WAGGONS.—When loading open waggons that have no apparatus for holding up the sheet, the loader should take particular care to elevate the load in the centre and above the sides of the waggon, so that a pyramid is formed, and thus there may be a declivity from the centre to the four corners of the waggon, to drain off the rain, or as it is sometimes expressed in railway phraseology, "make a shoot." If a waggon is hollow sheeted so that the water can form a pool on the sheet, should it happen that the sheet is an old one, the water is sure to permeate through and of course damage the goods. Many pounds go to pay claims caused by careless sheeting of waggons in this way. It is difficult to make the men choose the waggon suitable for the load; they persist in putting the first lot of goods into the first waggon that is handy and thus small loads are often buried in high-sided waggons and the sheets lie hollow and hold the water—when they do not let it through. In other cases large loads of goods are piled up upon low-sided waggons, which frequently result in a disturbance of the load during the process of shunting and of goods being shaken off and lost in transit.

Sheeting waggons is a particular branch in itself, and at large stations a dozen or more men are required for the work. Even at a small station it is better to select one or two men, and make them individually responsible for the sheeting of waggons, so that it may be well done. Hold these men responsible to report all open waggons that have been badly loaded, and which, from the placing of the load in the waggon, cannot possibly be sheeted safely to avoid damage by

wet. Manage the loaders and the sheeters so that they are made to check each other to insure the due performance of the work. Make also the inspector, yardsman or shunter, or other suitable person responsible that waggons do not go away improperly loaded or sheeted, and let such person detain all waggons that are either badly loaded or badly sheeted for the agent's inspection.

It is useful at large stations to have a few pairs of poles fitted at the tops with blocks and pulleys so as to hoist the sheets up by two corners, and then, if there are any holes in a sheet, the light through will make them easily discernible.

It is necessary that a proper survey of each sheet is made on arrival, and the labour and attention of the men is of even greater importance in performing this duty, than in that of covering the waggons. The most careful sheeting is of no protection if the sheet is "holed." The efficiency of the sheets can only be kept up by constant and continual inspection, and claims from wet can only be avoided by the withdrawal from use of faulty sheets. Sheets probably receive the worst usage of any railway appliances, and we have noticed this to be far worse at small country stations, where perhaps the porters are few and far between. Dragging about heavy wet sheets that require two men to lift, is not to the taste of many country porters, hence the necessity at a small station of training one strong willing man into the work, one who will take to it, for the consideration of getting, say, one shilling per week more than his fellow porters. Let him have another man or two to assist him, if necessary, at certain fixed hours of the day as the general work will permit. As the sheets are taken off the inwards waggons and dried, they should be examined as minutely as possible before being folded. The numbers should be chalked upon them as folded, and the sheets then placed under cover on dry ground, or on a boarded floor in an appointed and convenient place to be ready for use for covering outwards waggons. If the sheets are worn through in places or cut, then after being folded up and their numbers put upon them with red chalk, they should be put into *another appointed place* and sent early to the dépôt for repairs, with such way-bill or entry as may be in accordance with the goods manager's instructions.

When two sheets are required to cover a high load, the front sheet or one nearest to the engine should be the over-lapping one, or the wind, increased by the motion of the train, will blow open the second sheet and drive in the rain or even sparks from the engine and thereby possibly cause a fire. When waggons after being loaded have to be turned over one or two turntables, the sheeters cannot tell which end of the waggon may be turned nearest to the engine, hence in such cases it must rest with the shunters to put the waggon on the train so that the top sheet over-laps from the engine. In some cases ropes are necessary both to secure the load and the sheet, but in a general way the rope to secure the load had better be put on under the sheet rather than over it.

When two sheets are used to cover a waggon the number of the under sheet that has been obscured should be put upon the waggon label.

The sheeters should not tie the sheet strings to the waggon brake handles nor springs, but use the pins or hooks or rings specially put on to the sides of waggons to be used as fastenings for sheet strings.

Great care should be taken in sheeting traffic likely to take fire from sparks from the engine, such as cotton, wool, flax, hay, hops, hemp, straw, &c. Specially picked and sound sheets should be selected for such traffic.

Sheets should not be lent to traders to take away from the station, nor should they be used to cover pointsmen's huts, stables, pig styes, or otherwise used for purposes not incidental to the company's business.

THE PROCESS OF INVOICING—INVOICE OFFICE.—The invoices are made out from the consignment notes, hence, after the goods have been loaded and the notes checked they have to be taken to the invoicers. At some stations there is a general invoice office where from five to five-and-twenty clerks are working together, each man having a "division" or group of stations. At other stations the invoicing is done in huts on warehouse platforms, or in archways or yards, and on or near the spot where the waggons are actually loaded, and then one or two invoicers or shippers are allocated to each hut. When the invoicing is done in the huts the invoicer is technically called a "shipper;" and when the work is done in offices, then he is usually called an invoice clerk, but the two terms are in a measure synonymous. When the invoicing is done in huts there is little or no difficulty in the notes being safely passed from the loader to the shipper, but where the notes have at times to pass some distance to a general invoice office, a difficulty occasionally arises and notes are often lost and goods sent forward uninvoiced and thereby delayed in delivery at destination. Where collection sheets are used and senders *do not* cart their goods to the station, the loss of documents is less, because the collection sheets being larger documents, are less liable to be lost. One plan is for the loaders to bring in their dockets to the invoice office and deposit them in pigeon holes in station order or in the "division" order, according as the work is allocated to each clerk. Another plan is to have one or two sharp youths as messengers and keep them constantly going backwards and forwards collecting the notes from the loaders and bringing them into the invoice office. The first plan may suit one station and the second plan another station. We think the messenger plan leads to the notes being brought in quicker, provided steady youths are employed, as the loaders do not like leaving their work, and consequently let the notes accumulate more or less before they bring them in. A vicious practice sometimes grows upon invoice clerks of getting consignment notes into the office and invoicing the goods before they have been loaded. This should be arbitrarily stopped, unless when the custom is to load from loading slips and check the entries on these slips with the invoice already made. If the system is to invoice after the goods are loaded then an invoice clerk should be punished if he deals with a note in the way of invoicing the goods upon it, *unless it bears a waggon number* to indicate that the goods have been loaded.

Invoicing being the first entry of the goods, it is of great importance that this entry should be correctly made, particularly in respect to the charges, otherwise errors are originated which run through every portion of the work. The invoice is the document upon which the whole system of the accounts is based, hence its incorrectness tends to multiply errors and create unnecessary work. *No entry, in regard to figures, should be made from an invoice before the accuracy of the calculations has been tested, to prevent errors being carried forward into other portions of the station work.*

Invoicing, with the exception of the calculation process, is simply copying, and consequently greatly depends upon the accuracy of the eye, and a memory of form and capacity to imitate. An invoice clerk on receiving a note to invoice should first see whether the goods are to be invoiced at (1), company's risk, or (2), owner's risk. If at owner's risk, he should then see if the note contains sufficient to fulfil the requirements of the law in respect to "special contracts" (see page 73). The most important point then, is, that the note should be *signed* by or for the sender, and an ordinary note with the sender's name printed as a heading, but unsigned, does not constitute a *signed note*. If it be the practice of the company to accept the sender's own printed note, then it should certainly be *signed*, and the word "owner's risk" should be written *in full*. Our own opinion is, that under no circumstances should goods be carried at "owner's risk," unless when the company's own printed form of "special contract" is properly signed; but of course the invoice clerk must carry out the practice of his company. When goods are invoiced at owner's risk, the words "owner's risk" should appear on the invoice, otherwise the receiving station may undercharge the entry, and demand from consignee the increased charge at the ordinary rate.

The question of "owner's risk" or company's risk having been settled, the invoice clerk should then, before making any entry, see—

- (1.) That the note is a *bond fide* instruction from the sender, and if not on his printed form, that it bears the sender's signature or a signature on his behalf.
- (2.) That no unusual contract as to a time delivery, or otherwise, is embodied in the wording of the note.
- (3.) That the time of the receipt of the note, and consequently the goods, is marked on the note.
- (4.) That the date of the company's receipt agrees with the sender's date on the note (as a check against goods being detained and not duly forwarded).
- (5.) That the note bears the initial of the person who checked the goods into the waggon.
- (6.) That the note bears the receiver's or scalesman's figures showing that the goods have been weighed.
- (7.) That any item of "paid on" is not above the probable value of the goods.
- (8.) That if the goods consist of spirits (not under bond) in quantity over one gallon, they are accompanied by a permit as per 1 and 2 Will. IV., cap. 55, section 23, also 43 and 44 Victoria (1880), cap. 24, section 105.

If these matters are all right, there is nothing to infer that the goods cannot be carried in the customary way of business. The invoice clerk then makes the entry on an invoice for the particular station to which the goods are consigned. Care should be taken to copy the full name and place of residence of the consignee *exactly* as on the note. The name and number of the street where the consignee resides, or has his place of business is very important, especially in invoicing goods to London, Manchester, Liverpool, Dublin and other large towns (see Clearing House rule 164 of 1882). If the goods are ordered forward beyond the station to which invoiced, by any particular route, or carrier, or any person's care, it should be noted on the invoice as well as any special instructions regarding the carriage or delivery of the goods, and the words "owner's risk" inserted when the goods are so carried. In cases of marked goods, the marks and numbers must be clearly given on the invoice, otherwise the receiving station does not know what packages to deliver to different consignees. The contents of the packages should be given so that the receiving station, when checking the invoice, may see if the goods have been charged under the proper class. The sender's declared weight should not be taken when incorrect, but that of the company's receiver or scalesman. Each consignment note should be progressively numbered as invoiced, and the number entered on the invoice to facilitate reference, as the consignment notes must be kept in progressive order for reference purposes. The best way to preserve consignment notes for easy reference, is to gum them into paper skeleton books in progressive numerical order. The skeleton books may be with or without mill-board covers. The most economical form of gumming in the notes is to put the gum along the top back part of the note for a depth of half an inch only, and then stick it in the skeleton book, then follow on with the next note in like manner *one under the other*, thus one note overlaps the next and so on. In this way about ten notes can be preserved on one page of a small skeleton book measuring 15 by 10 inches.

When press copies are taken of invoices, and the invoices have not been printed with copying ink that will copy on to the tissue paper, it is advisable to write "S. to S." (station to station) or "carted" over the weight column, also "paid," "to pay," "paid on," "posted," and "porters" over the proper columns; there is then no mistaking in the tissue copies "not carted" weight for "carted" weight or "to pay" for "paid" amounts or *vice versa*.

To be a quick invoice clerk a man should have a memory to contain the classes of the leading every day articles mentioned in the goods classification as well as the rates to the principal stations to which he invoices. Great importance is attached to the insertion on the invoice of the route the goods are to be sent (see under route book.) An invoice clerk, when entering the waggon and sheet numbers on the invoice, should invariably give the initials of the company to whom both the sheet and waggon belong, as the Clearing House requires that information through the abstracts. The goods classification has been made so complete that an invoice clerk, when

invoicing, has little difficulty in ascertaining to what class the goods belong. When the contents of packages are undescribed and a conclusion cannot be formed from their appearance nor from a knowledge of the trade which the sender follows, charge such goods either as "goods heavy" not specified or "goods light" not specified.

When sundry goods are contained in two or more waggons and entered on the one invoice, the particular waggon number in which each package has been loaded should be shown in the margin of the invoice opposite the entry; also when grain, cotton, hops or other large lots of traffic are sent in full waggon loads, the number of articles in each waggon should be shown on the invoice in small figures over the waggon number.

Where several consignments of flour for different consignees and of different qualities are loaded in one waggon, great care is necessary to show on the invoice the distinguishing marks on the sacks. The qualities are usually denoted by letters or coloured ties or strings.

In calculating the carriage on goods, a ready reckoner will be found quicker than any other method. If the ready reckoner is not at hand, and the rate or given price is a divisible portion of 20s., calculate the weight at 20s. per ton, which is very simple. Take the tons as pounds sterling, the cwt.s. as shillings, and the quarters multiplied by three with the tenths (second figure) of the lbs. added as pence. By calculating in this way you set down the result at 20s. per ton as quickly as you can form the figures; it is only then necessary to multiply or divide, according to the rate you are dealing with say, 5 tons 17 cwt.s. 3 qrs. 20 lbs. @ 17s. 6d. per ton, say five pounds seventeen shillings, then three threes are nine and two (second figure of lbs.) are eleven.

Cost at 20s. per ton... £5 17 11

0 14 9 cost of $\frac{1}{8}$ of a pound deducted.

£5 3 2 at 17s. 6d. per ton.

In the case of awkward rates, where this plan will not apply, an invoice clerk must get by memory the amount per cwt., and work it in the ordinary way. In these latter days every endeavour is made to fix rates such as are divisible by twenty, so that the charge per cwt. will be an even sum easily multiplied. An invoice clerk should have a list of all persons having an authorised monthly ledger account with the company, and *no goods should be made carriage paid unless the senders actually pay the money or have a ledger account*. When an invoice clerk neglects this rule, and fails to collect the money before the ensuing pay day, the amount should be stopped from his salary, or his salary be withheld until the item is collected. It is very injurious to allow a station to be debited with amounts like this indiscriminately, as *extra work* is created both in the collection and the entering up of the outstandings, besides the company losing the use of the money. This rule should not be deviated from for any trader, as if he is worth consideration he will have a ledger account opened by the manager's authority. An agent should never open an account

without a superior officer's authority; otherwise, if a loss takes place, the odium will rest upon him.

It is allowable for senders to prepay part of the carriage upon goods—say goods are passing from London to Glasgow, the senders can pay a sum equal to the carriage to Birmingham or to Carlisle, and the difference can be entered in the "to pay" column of the through invoice, but it is a very questionable rule.

As a check against making goods "paid" contrary to the sender's orders, it is well for an invoice clerk to protect himself by checking over the "paid" amounts every morning to see if the amounts that he has made "paid" were so ordered on the consignment notes.

Another plan for checking "paid" amounts is to keep a rough entry book. Let one clerk keep the book for the office and intercept all notes before they reach the invoice clerks and enter the "paid" amounts off the notes into this entry book, giving consignee's name, the station and amount. Then require each invoice clerk, after making his invoices, to "check off" and insert the invoice reference opposite each "paid" amount. Each clerk is thus made responsible to check and deal with all "paid" amounts that refer to his division of stations. It should be the business of the chief invoice clerk on duty to see that all the amounts have been so referenced and initialed and exhausted out of the book on to the invoices. Where there are any unchecked items they should be dealt with and added to the invoices before the invoices are despatched. Any items made "paid" on an invoice and not traceable in the book should be reconciled and made correct. Where such "paid" amounts are very numerous, as at a large station, an A B C Ledger Index Book might be adopted, using a folio for each station, and, when necessary, a fresh book for each day or week. If still further sub-division is necessary the "paid" amounts might be indexed up under the consignees' names, as well as keeping the station separate. See Clearing House rule 165 and 175 (edition 1883) regarding the right of recharging "to pay" carriage to sending station in the case of returned empties, new waggons, &c.

To enable the receiving station to know what "tranship" invoices have been enclosed with those for their own station, it is necessary to make a list of the "tranship" invoices. If there are only a few "tranship" invoices, then a summary list may be made on a "parent" invoice where there may be available space, but, if numerous, the list may be made on a separate invoice form.

All goods consigned under bond to the care of the officer of the Customs or Inland Revenue should be carriage "paid," because Government officials always refuse to pay any carriage; and if the goods are not given up to them they have the power to seize them, and the carrier has no remedy against them for his carriage. Her Majesty's lien for the duty charges, supersedes all other liens.

When spirits in quantity over *one gallon*, either in casks, cases or jars, and not under bond, are removed from one place to another place, they must be accompanied by a "permit," or the carrier is liable to a fine of one hundred pounds, and his carriage or vehicle to be forfeited as per following sections of Acts of Parliament:—

1 and 2 William IV., cap. 55.

Section 23.—And be it further enacted, that every person who shall have in his custody or possession any spirits in any quantity whatsoever, the full duties whereon shall not have been fully paid, or any spirits in any quantity exceeding one gallon which shall have not been duly and legally “permitted” and attended with a proper permit to him, shall for each and every such offence forfeit the sum of one hundred pounds, subject to the mitigation hereinafter mentioned; and upon the trial or hearing of any proceedings for the recovery of such penalty, the defendant shall be convicted, unless due proof shall be made by such defendant that the full duties on such spirits had been duly paid, or that such spirits were bought by or for such defendant, and received from a licensed distiller or some person licensed to sell spirits, or that the same were attended with a proper permit to such defendant.

43 and 44 Vic., cap. 24 (1880).

Section 105—

1. No spirits may be sent out or delivered from a distiller's store, unless accompanied by a permit.

2. No spirits may be removed from a distiller's or excise warehouse, unless accompanied by a permit.

3. No spirits may be removed from a custom's warehouse (the same not being under bond on removal from one such warehouse to another such warehouse), unless accompanied by a custom's certificate from an authorised officer of customs.

4. No spirits may be sent out or delivered from the stock of a rectifier unless accompanied by a certificate.

5. No spirits may be sent out or delivered from the stock of a dealer unless accompanied by a certificate, except spirits not exceeding in quantity one gallon at a time, sold by him under an additional license, or a license to retail to a person not being a dealer or retailer.

6. No spirits exceeding in quantity one gallon, of the same denomination, at a time, for the same person, may be sent out or delivered from the stock of a retailer unless accompanied by a certificate.

7. Except as this section is provided, no spirits exceeding the quantity of one gallon, of the same denomination, at a time, for the same person, may be sent out, delivered, or removed from any one place to any other place unless accompanied by a permit.

8. All spirits found to have been sent out, delivered, or removed, or in course of being sent out, delivered, or removed, in contravention of this section, together with all horses, cattle, carriages and boats made use of in conveying the same shall be forfeited, and every person in whose possession the same are found shall incur a fine of one hundred pounds, or at the election of the Commissioners or the Commissioners of Customs, a fine equal to treble the value of the spirits.

ROUTE BOOK.—The loss or gain of considerable sums of money may be involved in the simple matter of traffic being correctly or incorrectly routed. That is, that the waggon should be labelled and the invoices marked alike with the same route and the route most

beneficial to bring the largest mileage division to the sending company. The correct route is also important, that the intermediate companies may receive their fair division for carrying the traffic. The abstracts being copied from the invoices, if a wrong route is given in the abstracts the Clearing House clerks in dividing the earnings on the traffic may apportion a share to a company over whose line the goods have not passed, while the company over whose line the goods actually did pass do not get their division. Thus the slip of the pen by an invoice clerk may occasion many pounds loss to an intermediate company.

To obviate errors of this kind either a separate book for "routes" should be in use in the invoice office or the routes should be given in the rate book. The loaders should also be supplied with a route book so that they may give the same routes on the waggon labels as the invoice clerks mark on the invoices.

INVOICE "PAID ON" BOOK.—It is usually found necessary to keep a rough "paid on" book in the invoice office, not as an accounts book but simply as a check book. A check is necessary in the invoice office to catch up and remedy omissions of "paid ons" in the invoices before same are copied and despatched. At a large station there is scope for theft by carters, who by altering figures on vouchers may embezzle cash obtained as "paid ons" unless an efficient check is maintained. The routine should be—(1), the carter delivers the goods and obtains the signature of the company's receiver on the sender's note; (2), the receiver may either make out a slip docket to be used in loading the goods, or he may subsequently obtain the original consignment note back again from the invoice office. Whichever plan is adopted the carter must produce both the company's receiver's receipt (on sender's note) and the consignment docket at the invoice office before the "paid on" voucher can be issued there; (3), the carter having shown the invoice clerk that the goods have been delivered and signed for, the clerk makes out a "paid on" voucher for the "paid on" amount and makes an entry in the "paid on" book, numbering this entry in the book on the voucher and on the note. It will be observed that the carter has an opportunity of either falsifying the amount of the "paid on" upon the consignment note or afterwards on the "paid on" voucher, while in his charge in transit from office to office. If it is convenient to send the "paid on" voucher from the invoice office to the cashier's office by a despatch tube or lift, this latter risk is avoided; (4), the carter goes to the cashier's office, presents the voucher, and upon signing same, receives the money. The cashier enters the amount in his "paid on" book and inserts the progressive number of the entry in the margin of his book to facilitate subsequent checking and balancing.

The "paid on" amounts should be entered in the invoice office "paid on" book by one particular clerk only, at the time the carter hands him the receipt and consignment note. The consignment notes showing the "paid ons" are then passed to the invoice clerks who have to make the invoice entries. The entries may be made continuously in the "paid on" book, or where the business is large the

entries may be made in ledger account form under each station. Each invoice clerk should then be held responsible, before copying and despatching his invoices, to go to this rough "paid on" check book and check the entries there against his entries on the invoice, and also insert in the book the invoice number in a column provided for the purpose. The object and design of this check is to exhaust correctly all the entries in the book on to the invoices. In some invoice offices the "paid on" amounts are only checked next morning after the invoices have been despatched, but this is like locking the stable door after the horse has been stolen. Still, however, to make doubly sure it is by no means unnecessary to apply this second check next morning, for it does occasionally unfold further errors that can be rectified by telegraph before the goods have been actually delivered.

Without some check errors pass into the outstandings, and it is next to useless to ask a consignee, many days or perhaps several weeks after delivery of the goods, to pay an omitted "paid on." Some check should be carried out daily, and debit notes made out against the clerks in fault for "paid ons" omitted, and the labour and correspondence in collection put upon them, and in some cases where the "paid ons" are not recovered the clerks in fault deserve to be charged with same. Often when the clerk who caused the omission writes or personally applies to consignee for the amount, payment is obtained. If the distance is short and the amount sufficiently important, the clerk might be given a pass to go during his own time, and at his own expense, to collect the omitted "paid on" from consignee.

Under this plan the actual control in paying the "paid on" rests with the clerk issuing the "paid on" voucher to the carter. The receiver must, however, be the judge as to whether the goods appear to be value for the "paid on." If the amount of "paid on" is heavy the invoice clerk should communicate with the receiver before issuing the voucher. It is the practice with some companies in Ireland to pay no "paid on" of five pounds or over until an advice shall have been received from the receiving station to say that consignee has paid both the "paid on" and the carriage. If, however, consignee is allowed to get possession of the goods without paying the "paid on," the company so delivering the goods become liable to pay the "paid on" whether it is recovered or not.

Omitted "paid ons" cannot be entered up against the receiving station without permission, but that permission should be at once given if the notice arrives at the receiving station before the goods have been actually delivered to consignee, because then the omitted "paid on" can be at once added to the "to pay" amount upon the invoice, and, if necessary, delivery of the goods withheld.

The sending station paying out a "paid on" must, if a demand arises, supply to the receiving station for the information of the consignee, particulars for what services the "paid on" was charged, otherwise the consignee may be defrauded either by the sender, the sender's carter, or possibly a servant of the company.

"Paid ons" should on no account exceed the probable value of the goods. These kind of charges arose in former days, when one

road carrier passed forward his charges to the next road carrier when transferring to him charge of the goods, and so on from carrier to carrier. Any charge incidental strictly to the carriage of the goods, such as sea freight, dock dues, cartage, &c., are clearly legitimate "paid ons." Some companies also advance money for customs' duties, and even go so far as to accept bills of lading, and "clear" the goods through the customs, but this kind of business is fraught with risk.

A practice exists of charging a part or the entire cost of the goods forward as a "paid on." This, although permissible under certain precautions and limitations, is very risky, and is to be avoided. The difficulty arises in respect to the consignee disapproving of the quality or price of the goods, and refusing them; and a further difficulty is the too common custom of delivering goods at the receiving stations upon credit. Rules, however, could be devised whereby goods in value, say under two pounds, could be sold between buyer and seller, and the carrier made the intermediate financial agent. But in such cases the carrier should receive a commission, and it should be a stipulation with the sender, that if the goods were not accepted and charges paid by consignee within seven days after arrival, they should be at once returned to the sender. The sender should not be paid the value (as a "paid on"), until the consignee should have first paid the amount; and if the goods should have to be returned, sender should have previously guaranteed or paid on deposit a sum equal to the carriage both ways, and agreed to at once accept the goods on their being returned. Separate specially coloured invoices and counter-part forms like those used for insured goods, would be necessary for this commission business. It would enormously increase the small trade of the kingdom, because now for small purchases the buyer is afraid to send the money, and the seller afraid to send the goods. It could be made a distinct department of the business of railway companies, and would grow to an enormously profitable business, but a question might arise whether or not it would be strictly within the scope of the act, by which each company was incorporated.

Railway companies parties to the through booking system have agreed, one with the other, not to charge "paid ons" for loading station to station goods, because, by doing so, the sending company might obtain an unfair advantage over the receiving company.

Recharges "paid on" and "to pay," which is practically a transfer of a debit, must be made on separate invoice forms. The object is that recharge amounts are sometimes disputed, and if entered upon invoices with goods, the charges upon the goods are then not duly brought to debit.

The labelling of books on the outside facilitates their being easily distinguished; and if the periods during which they have been in use are also marked on the labels a particular book that may be wanted, may be picked out quickly from amongst a great number.

GOODS TO "WEIGH, CHARGE AND ADVISE," AND "PARTICULARS TO FOLLOW."—These kind of cases are fully explained under "inwards goods." Every effort should be made to avoid having to make such entries. The clerk in charge of the invoice office should himself keep

a book of all such entries, and specially work up each case, so that the required information is extracted from the receiving station to enable a proper entry with weight and charges being issued.

It is important with all foreign traffic that the weight should be entered in the correct weight column, either "carted" or "not carted." If weight that should be entered in the carted column is put into the "not carted" column, then the two companies lose on the terminals, getting only one shilling and sixpence per ton each, instead of five shillings per ton, which may be serious where the cartage has been actually performed. The difference between the two amounts, viz., three shillings and sixpence, would in such a case be miled, but where one company had a short mileage the division on the three shillings and sixpence would be only fractional. The proper mode of correction is by weight correction sheets, by which, through the Clearing House, the company entitled to the extra terminal obtains it in subsequent settlements.

In some districts the custom of long weight, or 120 lbs. to the cwt. prevails, and so deeply ingrained is the custom in the minds of the people, that they will resort to any trick to palm off upon the carrier 120 lbs. for a cwt., instead of 112 lbs. The custom principally prevails in the iron and glass districts, where the quantities of iron traffic are measured by thousands of tons, so that 8 lbs. per cwt., or 160 lbs. per ton, over twelve months, means just as much loss to the carrier as gain to the sender.

Goods are sometimes received for a small station to which no through rates have been made, but yet through rates have been noted to other stations on the same line of railway. If the small station is sufficiently close to an adjacent town to which rates are noted, as to be grouped with it, the same rates may be used, provided such a course has been sanctioned as a principle by the goods manager. Another plan is to invoice and in some cases load the goods to the nearest station to which there are through rates, and then the charges, if any, can be transferred thence as "paid on" and "to pay" to the small station. It would not be reasonable in such cases to make an extra charge locally, from the one station to the other.

The loading and forwarding of outwards grain or other goods in large lots over several days is very confusing, therefore, in addition to using a small loader's book for each load, it is well for an invoice clerk to keep a grain book of the same form and ruling as explained under grain delivery. This, as it were, is opening a separate ledger account for each large consignment and keeping a record of the part lots when allowed to pass from day to day. He should see the lots are completed as soon as possible and report or correct omissions.

When invoicing ropes, particularly to foreign stations, the ferrule number and owner must be shown on the invoice. The rope on the outwards journey must be invoiced on the same invoice as that containing the goods and waggon for which the rope is used, excepting where a rope is put on a waggon at an intermediate station to make the load more secure, and then a separate invoice may be made for the rope so used, but it must be explained on the invoice. The amount

to be entered as "paid on" and "to pay" is ten shillings per rope. In the case of ropes that are returned, reference must be given to the number and date of the original invoice upon which the rope was entered and debited against the returning station. The substitution of one rope for another is not allowed, the identical rope sent out must be the one returned or the debit cannot be transferred.

At some stations where tissue copies are not taken, it is customary to have a forwarding book in which consignment notes are posted up in writing, and the invoice, after being copied from the forwarding book, is compared (or should be) with the consignment note. This plan is bad, though at a small roadside station it has to be used, owing to the expense of a press. The objections are—(1), the entry is written twice, and hence the work is doubled; (2), errors will creep in between the entry in the forwarding book and the invoice, and thus unnecessary correspondence and discrepancies in the abstracts are created.

Invoices to each station should have a progressive number during the month, commencing on the first and ending on the last day. To keep "track" of the numbers, the best plan is to have an alphabetical reference book or ledger list index, you may then, in a moment, open the page devoted to all stations commencing with the same letter. An invoice clerk, having finished writing his invoices, progressively numbers them in his book, keeping consecutive running numbers for each station. At some large stations there are several hundred invoices daily, and this number book is useful for reference purposes. A youth fills in, opposite the invoice progressive number, the folio of the invoice book in which the invoices are copied. The keeping of separate running numbers to each station is troublesome but necessary. Some stations use only one general running number for all invoices for the month, and do not keep a separate running number to each station. This latter practice, however, facilitates reference, as you have not to turn over a day's invoices, but can find a particular invoice at once by the progressive number. It is the best plan to use both numbers, and place the general running number for all invoices under the running number to each particular station. One number tells how many invoices are sent to each station and the other the total number of invoices sent from the station during the month.

Taking tissue press copies of invoices and letters needs care. It is most vexatious to have bad and illegible copies, which is easily prevented by proper management. The best plan for copying either invoices or letters is as follows:—first, count the number of leaves necessary to copy the invoices or letters you have, and damp them three or four at a time, leaving a small space dry at one corner to enable you to separate the leaves when damped. When all are wetted, press the superfluous water out by the aid of the press, taking care to have the damped leaves between two oiled sheets. Having previously creased the invoices or letters that the corners will not turn up when laid on the damp tissue paper and so prevent it remaining smooth, place that half of the open tissue book nearest to you which already contains copies, and support the other half on which the damp leaves lie in a slanting position, to facilitate turning over the damp leaves.

Lay over a damp leaf; place your invoices or letters upon it, face downwards; follow on until all are enclosed, and then give the book a good pressing in the machine, but excessive pressure likely to break the press is not necessary. If you have properly damped the leaves, the copies will be good. In copying, all depends upon the degree of dampness of the tissue paper. If it is too wet the ink runs, and if too dry it will not copy. Some invoice clerks can tell the proper degree of dampness by feeling; others by sight. The paper should be thoroughly damp, and contain as much water as it will hold. If more water is left on the paper than can be absorbed, the ink will run. If you press the paper too dry, and you have a number of invoices or letters to copy, the first few sheets become quite dry during the time you are getting the invoices or letters between the leaves. This frequently happens when it is attempted to copy too many at once, or you are too slow in turning the leaves over and getting the invoices or letters between. You may copy perfectly twenty leaves of a letter book at once, and if very quick no doubt a greater number. The time is lost, when, from neglecting to crease the invoices or letters properly, the wet tissue paper cannot readily be made to lie smooth. Blowing often smooths damp tissue paper much better than handling.

The lately introduced "buff" copying paper is a great improvement on the thin white paper, but it requires a greater amount of damping and a less number of copies can be taken at one time. The great evil with youths in copying is that they do not use oil sheets top and bottom when damping the copying paper. They damp a lot of paper more than they require to use at the one time, and leave the top sheets to dry, and then an hour or so afterwards redamp it so that it gets soddened. Paper should only be damped once, therefore only damp just as many sheets as you require to use at the one time.

The buff paper is excellent, particularly for invoice books, because it will bear greater handling and consequently last longer without deterioration or the invoice books coming to pieces.

It is advisable at large stations to have separate tissue books in use for each day's invoices or for groups or divisions of stations to enable different clerks to simultaneously post up each day's work. The wear and tear, however, on the books, if they have only paper covers, is very great. To reduce this wear and tear we have lately introduced a couple of dozen thin wooden boards made the size of the paper bound tissue books. A book is then put on a board and a lath with two screws fastens it to the board at the stitched back of the book. The single tissue books are kept on these boards for the first week, and until the six books for the week have passed through the various offices, after which they are stitched together with twine and comprise the week's invoices. The old fashioned plan was to copy the invoices on loose tissue paper and then gum or paste these copies into skeletons, which was usually done after the process of abstracting. This plan involved the occasional loss of one or two of the loose tissue copies and the subsequent pasting process was tedious and expensive.

There are three methods in use for despatching invoices—(1) nailing to the truck side; (2) giving them to the goods guard when

he takes the waggons, and obtaining his receipt; (3) sending per passenger train. All are liable to mischances, as in the second and third methods the invoices may get to hand without the trucks, and *vice versa*. In the first method both trucks and invoice may get astray together: nevertheless, this plan many think the best, as there is only one chance of the truck and invoice together getting wrong, and there are two chances when they are separated. When the invoices are nailed on the waggons a slip advice might be sent to each station, so that if both waggon and invoice miscarry the receipt of the slip advice will enable the receiving station to report the non-arrival. When the weather is wet, and the journey long, the invoice may fall off, especially if the envelope is not stout or not made of waterproof paper. If you adopt the plan of nailing invoices on the trucks it should be regularly carried out, so that the receiving stations may always look for the invoices on the side of the truck. As a check that this is done, give the yardsman or shunter positive orders not to forward trucks unless the invoice is nailed to them. It is ridiculous to argue that they cannot be got ready while the trucks are being shunted and turned out. In addressing invoices the waggon numbers should be given on the envelope or outside, as there may be only one invoice for three or four trucks, as in the case of iron or grain. In some cases it is well to send invoices by post.

The invoice and other clerks should be impressed with the importance of never allowing strangers access to the offices, nor to inspect books or documents; and also to be circumspect in allowing employees of other railways to obtain information that might be turned to disadvantage against their own company in respect to claims on goods or otherwise.

Pushing and unprincipled traders will sometimes try to get information from railway clerks or foremen as to the names and addresses of consignees buying goods from other traders; in fact, it is an attempt to take away the customers of their competitors in the same trade. We knew of one case where a railway loading foreman used to send by post a weekly return to a timber merchant of all timber sent away from a particular station by other timber merchants, giving the consignees' names, residences and quantities. We also knew of a case where a man from a timber merchant came into a railway station yard and copied the names and addresses of consignees of timber from the address cards that had been nailed on each lot of cut timber lying on the ground waiting waggons. Any case of this kind should lead to the offender, when a company's servant, being instantly dismissed the service. Strangers spying about railway warehouses or yards, and especially if seen to look at address cards on goods, should be challenged and their business inquired. Traffic canvassers of other carriers require to be generally well watched in this respect. We have known some traders boldly write for lists of names of persons in particular towns who buy certain kinds of goods, the object being to sell goods to such persons. Such information could only be given by divulging other traders' customers, which, on the carrier's part, would be a breach of good faith. Where a sender, such as a farmer, has

“produce” to sell, and writes to an agent for the name of a salesman or broker in a large city, there can be no harm in sending him the names of half a dozen salesmen or brokers, leaving him to make his own selection.

RATE BOOK AND RATE QUOTATIONS.—Since 1873 railway companies have been required by act of parliament to keep a public rate book at each station; the station agent is thus in a measure relieved of the responsibility of quoting a rate to a personal applicant, and particularly when he may be a litigious customer. The following is a copy of section 14 of the 36 and 37 Vic., cap. 48 :—

“Every railway company and canal company shall keep at each of their stations and wharves, a book or books showing every rate for the time being charged for the carriage of traffic other than passengers and their luggage, from that station or wharf to any place to which they book, including any rates charged under any special contract, and stating the distance from that station or wharf of every station, wharf, siding or place to which any such rate is charged.

“Every such book shall, during all reasonable hours, be open to the inspection of any person without the payment of any fee.

“The commissioners (railway) may from time to time, on the application of any person interested, make orders with respect to any particular description of traffic requiring a railway company or canal company to distinguish in such book how much of each rate is for the conveyance of the traffic on the railway or canal, including therein tolls for the use of the railway or canal, for the use of carriages or vessels, or for locomotive power, and how much is for other expenses, specifying the nature and detail of such other expenses. Any company failing to comply with the provisions of this section, shall for each offence, and in the case of a continuing offence for every day during which the offence continues, be liable to a penalty not exceeding five pounds, and such penalty shall be recovered and applied in the same manner as penalties imposed by the Railways Clauses Consolidation Act, 1845, and the Railways Clauses Consolidation (Scotland) Act, 1845 (as the case may require), are for the time being recoverable and applicable.”

We do not recollect ever seeing a counterfoil rate quotation book, but the plan, if not in use, would be serviceable. The half for the applicant could be torn off, and, if necessary, copied through the correspondence, while the blocks would form a compact and permanent record of all rate quotations in writing to the public, and by indexing the traders' names, reference thereto would be facilitated in cases where advices of rates being changed had to be given.

When quoting two rates (1), company's risk; (2), owner's risk, the trader should be warned, as follows :—“*The owner's risk rate is not available unless the special contract form is signed before or at the time of offering the goods for conveyance.*”

An agent should avoid being led into quoting a rate for a large quantity of goods without understanding when they are to be conveyed. Sharp traders will sometimes get a quotation for a large lot,

which, however, they intend to send over a period of perhaps three or more months or longer, and if during this time the rate is altered there is a great outcry, and the contention then is that the rate was quoted for a specific quantity, and that the quantity has not yet been sent. Another piece of sharp practice is to ask a special quotation for a single consignment, and after it is carried an application is made if that rate can be continued for a large number of tons. This, perhaps, is consented to, and afterwards it transpires this large lot will be spread over several months.

Great care is necessary in quoting rates, and the person upon whom this duty devolves should, before making a quotation, *look twice*, to make quite sure of the exact figures. It is the better plan to confine the quoting of rates to one clerk, either the chief invoice clerk at the station, or some equally eligible person. Rates should *not* be quoted on scraps of paper, either in ink or in pencil, but upon the printed form most companies have adopted. This form contains the company's notices and conditions, and also the 500 lbs. scale for smalls, and its acceptance by the person asking for the rate gives him a reasonable chance of knowing the varying conditions attached to the rate, according as the consignment may be under or over 500 lbs. weight.

Even with correspondence it is better in quoting a rate to reply on the printed form rather than by an ordinary letter. Traders sometimes send a long list of stations on foolscap paper and ask for rates for a certain class of goods to be filled in. If the rates are given, the words, "these rates are liable to alteration without notice—signed —," should be written on some part of the body of the list where it cannot be easily cut off or erased, as might be done at the extreme top or bottom of the list.

Special rates for particular individuals have fortunately ceased for many years, at least in open form, and it is hoped in all other forms. A special low rate may be made between two stations, but although made possibly to accommodate a particular trader it must be open to any person who chooses to use it for the same kind of goods under equal circumstances; in fact, there may be special rates for special kinds of goods but not for particular individuals.

When submitting a case to the goods manager for the reduction of a rate owing to competition or the quotation of a new rate an agent should furnish every information which the goods manager may require to form a true judgment on the matter, viz.:—applicant, station to or from, whether "station to station" or carted, description of goods, when to be forwarded, weight or quantity likely to be forwarded, probability of developing a regular traffic in the particular commodity, and rate charged by other conveyance if there should be any other.

The quotation of a lower rate, even purely in error, binds the carrier, as decided in the case of *Winkfield v. Packington* (1827)—*Carrington and Payne's Reports*, vol. 2, page 599.

The following section 90 of the 8 and 9 Vic., cap. 20, is termed the equality clause of 1845 and enforces equal rates to all traders:—

At large stations an inwards and an outwards waggon book is necessary, and when the waggons are very numerous a further sub-division may be advisable by using additional and separate books for foreign waggons inwards and foreign waggons outwards.

The usual process is to have youths with memoranda books in their hands to attend the arrival and departure of all trains, and to actually take the waggon numbers down in pencil from the figures *on the waggon sides* and transfer these pencil entries in ink into the waggon books. It is better to use memoranda books rather than collect the labels off the waggons and enter up the numbers from the labels as is slovenly done at some places. Nor should the numbers be taken from the outside of the invoice envelopes, which is an equally vicious plan. The number must be taken from the waggon itself and the station the waggon is to or from read off the label. Care should be taken not to be misled by an old label, for sometimes an old label will be left on one side of a waggon while the current label is on the other side, the waggon not having been newly labelled on both sides. This entails noticing the date on the label to prevent such mistakes.

The waggon record is too frequently inefficiently carried out at stations, simply because there is but a limited check upon the process. Where it may be found necessary a very useful check can be carried out by a youth as follows:—Supply him with two long books, say 15 by 5 inches, one for outwards and the other for inwards waggons. Let him enter up the waggon numbers *off the inwards and outwards invoices* respectively, into his books immediately after the departure and arrival of each train, and then *at once* go to the waggon books and check the numbers recorded there. This check kept up *well to time* will show, (1) waggons sent away uninvoiced, (2) waggons invoiced and left off the train, (3) waggons arriving without invoices, (4) invoices arriving without waggons, (5) it will show the mistakes of the number-takers in omitting to take waggons, (6) mistakes of the invoice clerks in omitting waggon numbers from invoices, (7) mistakes in quoting one number for another, and (8) waggons forwarded to wrong stations from being erroneously labelled. This information brought to the surface within half-an-hour of a train's departure or arrival is most valuable, because the errors can be adjusted at once, and complaints and correspondence avoided.

The danger is that waggons should be overlooked, for in a large yard with sometimes several hundred waggons in and out during the day, the risk of waggons getting into out-of-the-way sidings and corners is alarmingly great. An inwards waggon actually in the yard may be reported not to hand, if the number-taker has omitted to record it and it has been misplaced. Then, again, an outwards waggon supposed to have been sent away on its journey, may have been misplaced and delayed in the yard. The shunters will be sure to tear the waggon labels off to make it appear the waggon was never labelled, and will say "how were they to know where to send it." Some of these contingencies are caught up and checked, if you insist that the number-taker shall only take the waggon numbers when the train has been actually formed, and in the same order as the waggons

stand on the train and only a few minutes before it leaves, so as to make certain that he gets no waggon number into his book unless the waggon has really gone forward.

To catch up and check other kinds of failures fix some hour once a day when there are the smallest number of waggons in the yard, and let one or two careful men go round and take stock of the number and date of arrival of every loaded waggon in the yard, and also the number and date of arrival of every foreign empty waggon on hand. This return will become a guide in getting away foreign waggons subject to demurrage, also in getting inward "station to station" waggons or other loaded waggons unloaded. Any loaded waggon without label, which may prove to be an outward waggon left behind, will thus also be discovered.

The numbers of the empty waggons on hand need not be taken but they may be counted in the gross, so that if more empty waggons are required, measures can be adopted to obtain them, while if more are on hand than are necessary they can be worked away to stations requiring waggons.

Where it may be necessary to adopt a further "pen and ink" check for foreign waggons the following form is useful as a supplementary entry. Get some loose "check sheets" printed as follows:—

Nos. Ranging 1 to 100.				Nos. Ranging 101 to 200.				Nos. Ranging 201 to 300, and so on.			
Waggon No.	Owner.	Date. Arrival.	Date. De- parture.	Waggon No.	Owner.	Date. Arrival.	Date. De- parture.	Waggon No.	Owner.	Date. Arrival.	Date. De- parture.

The columns may be apportioned for waggons numbered 1 to 500 or 1 to 1000 or otherwise, all depending upon the range of the numbers of the foreign waggons with which you have to deal. The foreign waggons must be regularly entered upon the sheets each day, both on arrival and departure; then each day it is easy to compile a rough list from these sheets for the yard foreman, showing such waggons as are due to be sent away *that* day; the absence of the date of departure being filled in will at once indicate that the waggon is on hand, errors excepted. The object of subdividing the numbers and arranging them in columns is to facilitate finding any particular number of waggon quickly to mark off its departure.

The fact of foreign waggons being received with goods that are uninvoiced does not exempt the waggons from demurrage.

A useful occasional check is, say, on Tuesday to take Monday's return of waggons on hand and see if those waggons are entered as going out on Tuesday or are shown on the Tuesday's return of waggons still on hand. This will quickly tell with what correctness the number-takers are doing their work.

An agent should specially provide for the daily examination of each day's returns of foreign waggons on hand to prevent the waggons being overlooked and demurrage accruing. The returns should show accurately the dates the waggons arrived.

STOPPAGE OF GOODS IN TRANSITU.

Each railway company usually supplies its agents with instructions as to the action to be taken in cases where senders request the company to stop delivery of goods which have been sent forward to the consignee. With these instructions it is not our province to interfere, but we purpose to so far supplement such instructions as to explain the legal bearings of stoppage *in transitu*. By this information an agent may become more impressed with the intricate points involved in a case of stoppage *in transitu*, and rendered more careful in dealing with such transactions. The usual instructions are, that an agent shall obtain a written and stamped guarantee from the sender holding the company harmless under all circumstances. The larger companies use a printed form of guarantee which reads something as follows:—

To the Secretary of the ——— Railway Company. Sir—In the event of the undermentioned goods not having been actually or constructively delivered to consignee, we request that you will detain them to our order, and we undertake to indemnify and hold you harmless against all costs, damages, and expenses of every kind or description which you may be put to or incur in consequence or by reason of such detention, or of your delivering the said goods or any of them to our order; and for the consideration aforesaid we further agree, that as against us you shall retain on the said goods whatever lien you may now be entitled to thereon.

Signature, _____	Sixpenny	_____
	Stamp.	

Witness, _____

Date, _____

Schedule of goods above referred to.

Consigned to _____

on or about the _____ day of _____

Upon the sender's application to stop delivery of goods *in transitu*, the guarantee should not, however, be accepted from the sender until word has first been obtained by telegraph from the receiving station that the goods can be actually stopped and that the stoppage can take

place before the consignee shall have done any act to constructively terminate the contract of carriage and thereby constitute the company his warehousemen, holding the goods on his behalf; the guarantee form then may be completed, signed and accepted, provided the sender is a man whose position and means would enable him to fulfil the conditions of the guarantee. If, however, between the time of sender's notice to stop, and we will say, an actual or constructive delivery of the goods to consignees, there was a reasonable time for the carrier to have stopped the goods, but that he failed to do so, then the carrier may find himself responsible for the value of the goods owing to such default. He may be held liable in that he accepted the guarantee and thereby undertook to stop the goods, but that he neglected to give due and proper force in time to the sender's notice of stoppage *in transitu*. It must be remembered, however, that there are cases when the carrier may be legally responsible to accept the sender's notice to stop the goods *whether the sender does or does not* consent to sign a guarantee.

If after the goods have been stopped any delay takes place on sender's part, it may be necessary for him to be written and advised that unless the guarantee form is at once completed by being signed the goods *may have to be* delivered to the consignee. The acceptance of the signed guarantee is likely to legally bind the company to withhold the goods from consignee and make the company liable for their value if afterwards inadvertently they should pass into consignee's possession. Should such occur a possible defence may be raised as follows:—Had the sender the legal right *at the time* to stop the goods from passing to consignee under the conditions of the sale contract between them? When the goods are over ten pounds value the sale contract between sender and consignee (buyer and seller) is controlled by the Frauds Act as follows:—

Statute 29 of Charles II., cap. 3, section 17.

No contract for the sale of any goods, wares and merchandises, for the price of ten pounds sterling or upwards, shall be allowed to be good, except the buyer shall accept part of the goods so sold, and actually receive the same or give something in earnest to bind the bargain, or in part payment; or that some note or memorandum in writing of the said bargain be made and signed by the parties to be charged by such contract, or their agents thereunto lawfully authorised.

Statute 9 George IV., cap. 14, section 7.

And whereas by an act passed in England in the twenty-ninth year of the reign of King Charles the Second, intituled "An Act for the Prevention of Frauds and Perjuries," it is among other things enacted, that from and after the 24th day of June, 1677, no contract for the sale of any goods, wares and merchandise, for the price of ten pounds sterling or upwards shall be allowed to be good, unless the buyer shall accept part of the goods so sold and actually receive the same or give something in earnest to bind the bargain, or in part payment, or that some note or memorandum in writing of the said bargain be made and signed by the parties to be charged by such contract or their agents thereunto lawfully authorised: And whereas a similar enactment is contained in an act passed in Ireland in the

seventh year of the reign of King William the Third: And whereas it has been held that the said recited enactments do not extend to certain executory contracts for the sale of goods, which, nevertheless, are within the mischief thereby intended to be remedied; and it is expedient to extend the said enactments to such executory contracts: Be it enacted that the said enactments shall extend to all contracts for the sale of goods of the value of ten pounds sterling and upwards, notwithstanding the goods may be intended to be delivered at some future time, or may not at the time of such contract be actually made, procured, or provided, or fit or ready for delivery, or some act may be requisite for the making, or completing thereof, or rendering the same fit for delivery.

Justice Story, who is accepted as a great authority, defines the law as follows:—

“Where goods are shipped on a credit by seller to consignee and the consignee or buyer becomes insolvent, or has failed before their arrival, the law, in order to prevent the loss which would otherwise happen to the seller or sender, allows him in many cases to countermand the delivery, and at or before the arrival of the goods at the place of destination, to cause them to be re-delivered to himself or some other person appointed to act for him. This is usually called a *stoppage in transitu*. In such a case the delivery to the carrier is supposed to vest the title to the property in the buyer, subject only to his right of divestment or *stoppage in transitu*. The right, however (as will be at once perceived), is not an unlimited right. It exists only in cases where all the following circumstances concur. Where (1), the goods are sold on credit; (2), where the consignee is insolvent; (3), where the goods are still in transit, and have not been delivered to the consignee; and (4), where the buyer has not yet parted with his ownership to any *bona fide* purchaser without notice under him. Each of these requisites is important enough to deserve a separate discussion in its proper place, and especially the question under what circumstances the transit is, or is not at an end, which is full of nice distinctions and curious learning.”

The following illustrate some of the critical points in respect to consignee's right of *stoppage in transit*.—*

1. In *Hodgson v. Loy* (1797), it has been held that a sender's right of stopping goods *in transitu* is not taken away by the consignees having partly paid for the goods; the sender has a right to retake them (in case of bankruptcy), unless the whole price has been paid.

2. In *Feise v. Wray* (1802), it has been held that though the trader had, before his bankruptcy, accepted bills drawn on him by his correspondent for the amount of the goods, such acceptances provable under his commission, amounted at most to part payment for the goods, which does not take away the sender's right to stop *in transitu*.

3. In *Scott v. Midland Great Western* (1852), the assignee of the bankrupt got possession of some goods, and the bankrupt's brothers

* From “*Ivatt's Carriers' Law relating to Goods and Passenger Traffic on Railways, Canals and Steamships.*”

claimed the goods. The company detained the goods until either the one party or the other proved their right to legal possession, and the court held the company were justified in doing this.

4. In *Benson v. Midland Great Western* (1857), the sender (Benson) stopped thirteen firkins butter, although the consignee had really paid him for the butter, but there was an old money dispute between the two. The company not knowing of this gave up the butter to the sender, and then afterwards had to pay consignee the value, forty pounds. It was held the company could recover the forty pounds from the sender, he having unlawfully stopped the butter which legally belonged to the consignee.

An important and critical point is whether the *transitus* is in course or at an end at the identical time the sender gives notice of stoppage to the carrier. The following are cases that relate to the circumstances under which the *transitus* is still in course:—

5. In *Bolton v. Lancashire and Yorkshire* (1866), sender sold consignee eleven skips of twist to be delivered at different dates. Consignee received the first three skips and paid for them, but the quality being bad, refused the other eight. Consignee's carter took four of these skips from the station in mistake, but at once returned them. Consignee then reconsigned the eight skips back from Brierfield to Salford. Sender refused them and sent them back again to Brierfield. Consignee then became a bankrupt and sender then gave the company notice of stoppage *in transitu*, and the company gave the skips up to sender. The consignee's assignee then sued the company for value of the skips. Chief Justice Erle held that it was clear consignee did not intend to take the goods, and that the goods had never ceased to be *in transitu*.

6. In *ex parte Barrow re Wordsell* (1877), leather was shipped to Falmouth and unloaded from the steamer into the carrier's warehouse—consignee was then an absconding bankrupt. The course of business was to hold consignee's goods in the warehouse subject to his order. The bankrupt's receiver did not claim the goods before sender gave notice of stoppage *in transitu*. Held that the *transitus* was not at an end when the goods were stopped, nothing having taken place to constitute the carriers at Falmouth warehousemen for the consignee.

The following are cases that relate to the circumstances under which the *transitus* is at an end:—

7. In *Scott v. Pettit* (1803), defendant was a "packer" in London, and goods sent to consignee were addressed to the "Bull and Mouth" Inn. There was a standing order for such goods to be thence delivered at Pettit's house. Consignee became an absconding bankrupt, and his assignee (Scott) claimed the value of the goods which Pettit had delivered to sender. Lord Alvanley held the *transitus* had ended at Pettit's house and the assignee could recover.

8. In *Hurry v. Mangles* (1808), defendant a warehouseman, sold oil lying in his warehouse to J. S. on a bill of six months. J. S. sold the oil, *bona fide*, to Hurry (plaintiff), and Hurry paid warehouse rent but did not remove the oil. J. S. became bankrupt and hence his bill was of no value and defendant refused to give up the oil to

Hurry. Lord Ellenborough held the acceptance of the *warehouse rent* by defendant was a complete transfer of the goods to the purchaser. This was an executed delivery from the seller to the buyer.

9. In *Rowe v. Pickford* (1817), goods arrived in London from Manchester and consignee was advised. He became a bankrupt and did not remove the goods. It was consignee's practice to allow the goods to remain in the carrier's warehouse until he shipped them to the continent. Sender gave notice to carrier of stoppage *in transitu*. Held by Justice Chambre, that the *transitus* had ended and the bankrupt's assignee could recover the value of the goods.

10. In *Foster v. Frampton* (1826), consignee sampled three hogsheads sugar, and told the carrier to keep the casks in his warehouse for him. Justice Bayley held that from that time the carrier became the warehouseman of the bankrupt (consignee), and the goods were as much in the possession of the latter as if he had taken them into his own warehouse.

11. In *Allan v. Gripper*, oil cake was carried by canal, Twickenham to Hertford, and before Allan (sender) gave notice of stoppage *in transitu*, the cake had been unloaded into the carrier's (Gripper's) warehouse at Hertford, on account of Pestall the consignee. Pestall used the carrier's warehouse as a store for his cake, sometimes for months at a time, and sold the cake from the warehouse. Lord Lyndhurst held that the *transitus* of the cake was at an end in the warehouse.

12. In *Schotsman v. Lancashire and Yorkshire* (1867), a cargo of flour was sold at Rouen to Fort & Co. (Cunliffe). Now Cunliffe was not only Fort & Co., but also a registered owner of the "Londos" vessel that carried the flour from Rouen to Goole, hence the captain was his (Cunliffe's) agent. Cunliffe became a bankrupt. The flour was unloaded into the company's warehouse at Goole. The Lord Chancellor held that as the flour had been delivered at Rouen to an agent (the captain) of Cunliffe, the seller's right of stoppage *in transitu* was gone.

13. In *ex parte Gibbes re Whitworth* (1875), Whitworth & Co. accepted a bill of exchange for value of one hundred and forty-four bales cotton, upon which they received the bill of lading. The Lancashire and Yorkshire Company got the cotton in Liverpool, on producing the bill of lading, and sent the cotton on to Whitworth & Co., Luddendenfoot Station, where Whitworth & Co. had a siding into their cotton mill. Part of the cotton passed into the mill, and some portion lay in railway waggons in the company's station. Gibbes (the seller) desired to stop this portion *in transitu*. Chief Justice Bacon held that when the railway company paid the sea charges and got the cotton in Liverpool, there was an end to the *transitus*, as far as Gibbes was concerned.

Another class of cases arise where the property has passed to a third person by purchase.

14. In *Johnson v. Lancashire and Yorkshire* (1878), the company handed back to senders thirty-eight railway waggons, taking from

senders an indemnity. Senders had consigned the waggons to Lockwood, and Lockwood transferred them to Johnson. Now, Johnson refused the waggons, but gave the railway company notice *not to deliver them except to his order*; the company having had Johnson's order to hold the waggons for him, the transitus was at an end. Judgment against the company six hundred and forty-six pounds.

15. In *Lickbarrow v. Mason* (1794), a cargo of corn arrived in Liverpool. Consignee had sold the corn for a valuable consideration, and indorsed bill of lading to purchaser. It was held that the right of stoppage *in transitu* was lost, *unless fraud could be proved*.

Sometimes the crucial point rests between actual and *constructive* delivery to consignee, which is illustrated in the following cases:—

16. In *Bolton v. Lancashire and Yorkshire* (1866), consignee's carter took part of the goods from the station in mistake, but at once returned them. Chief Justice Erle said—"Consignee refused to take the goods, and the goods delivered from the station to his mill were delivered contrary to his instructions by his carter, and it was the same as if a wrong doer had taken them, and then they had been brought back." Justice Willes said—"It has been said that a delivery of a part is a delivery of the whole, but that decision has been dissented; and it has been said that it is only so when the delivery of the part is in course of delivery of the whole, and the taking possession of that part is then an acceptance of *constructive* possession of the whole. The mistake of the carter had no effect on the rights of the parties, as it was not a taking of possession by the buyer of a part of the goods." The previously quoted case of *ex parte Gibbes re Whitworth* also illustrates the same point.

17. In *re M'Laren ex parte Cooper* (1879) out of one hundred and fourteen tons of castings, thirty tons had been delivered before the notice of stoppage *in transitu* had been given. Lord Justice Brett said—"Part delivery of a cargo or of the bulk of the goods is not *prima facie* delivery of the whole," and that the *transitus* of the remainder had not ended.

The carrier cannot convert himself into a warehouseman of the goods, without consignee's authority.

18. In *Bolton v. Lancashire and Yorkshire* (1866), Chief Justice Erle said—"A carrier may be a warehouseman of goods arrived at their destination, but to constitute him such, there must be a change from the capacity of carrier to that of warehouseman, and that cannot take place unless the parties intend it."

A consignee can counter-order and re-consign goods at any part of the journey.

19. In *Scothorn v. South Staffordshire* (1853), goods were consigned and invoiced from Great Bridge to London for "Scothorn & Co. to the East India Docks, passenger ship 'Melbourne,' Australia." Consignee went to Euston Station and left with a company's clerk there the railway receipt, across which was written—"Send the boxes, &c., to Scotthorn, Engineers, Bell Wharf, Radcliffe, London." The clerk agreed to do this. The boxes, however, were delivered to the "Melbourne," and went to Australia, and were lost. Baron Platt

said—"If a carrier undertakes to carry goods from one place to another it is subject to a countermand at any part of the journey, though the owner may be bound to pay for the whole distance."

20. In *London and North-Western v. Bartlett* (1861) twenty-eight quarters wheat were sent to Birmingham at "station to station" rate, but sender paid one shilling and sixpence per ton extra for its delivery to consignee's mill. Consignee had established a usage that his wheat was to remain at the station. The wheat in question was never delivered to the mill, became deteriorated and was returned to sender (defendant). Chief Baron Pollock, on appeal, held "it is quite clear that the consignee of the goods may receive at any stage of the journey, and, I think, if sender directs goods to be delivered to a particular place, it is no contract to deliver the goods at that place and not elsewhere. The contract is to deliver the goods there, unless the consignee shall require them to be delivered at some other place." Judgment for carrier.

Although the carrier delivers up the goods to the sender upon a guarantee or otherwise, the carrier may still be liable to be sued for the value of such goods. It depends upon the facts of the case in their legal bearings, whether or not the carrier can be held liable. The wiser course, in doubtful cases, appears to be for the carrier to hold the goods until either sender or consignee can establish their legal ownership.

CANVASSING FOR TRAFFIC.

Carting arrangements to adjacent towns and villages—competitive centres for manufacturing particular articles—competitive traffic worked under agreements—bribes and perquisites to traders' foremen, and draw-backs—traders confining their business to one carrier—importance of direct communication between the company and the trader—canvassing senders as against consignees—consignee, as buyer, controls the route—reluctance of senders to disclose their customers' names—monthly meeting of canvassers.

WHERE an agent has no canvasser at his station, there being no opposition, then all the traffic that has to be forwarded must necessarily pass through his station, and he cannot do very much to produce an increase. But sometimes, even then, by making carting arrangements to adjacent towns or villages, better accommodation may be afforded and a traffic encouraged. Often a neighbourhood may produce certain commodities, mineral or vegetable, that from the want of enterprise on the part of the people, has never been brought into the market. If so, it is to the interest of the company to lead to the introduction of such commodities, so that they may be carried over the line. An agent should make his goods manager aware of the facts, and, as far as lies in his power, induce buyers to draw their supplies from his locality. A traffic may sometimes thus be forced and developed; and when once developed it may be increased and held by giving it attention and accommodation. At times inquiry will elicit that a reduction in rate will increase it, because the commodity can be purchased from another locality cheaper, if the rate is made to suit. A matter of this kind should be reported to the goods manager, and the sellers should reduce their profit as well as the company, so as to draw buyers. In making a traffic, much depends upon a knowledge of the markets, that rates may be regulated without loss, while at the same time buyers are drawn to those markets to and from which the company want to carry. Care should be taken that traders, to suit their own purposes, do not make use of an agent to get a rate reduced, merely to put the reduction into their own pockets. When there is no opposition in a locality, the station should be worked in such a manner as to keep competitors out, and that the public may say they could not be better served, there being no cause for complaint.

When a station is situated in a locality and there is railway or water competition, or perhaps both, it is imperative, so as to get a fair share of the traffic, that the greatest, or at least equal, inducements should be offered in the shape of (1) accommodation, (2) speed, (3) attention, and (4) correctness. We do not say rate, because in opposition between carriers equal rates are generally agreed upon, and in water opposition railway expenses are so great, that it is out of the

question to attempt to compete in prices, and therefore speed is all that can be given in lieu. Having opposition, an agent or a canvasser should canvass well and contend with his opponents for every ton of goods, and the favour of every trader. Attention should be paid to traders; their trifling complaints must be listened to with patience, and explanations afforded as to the origin of errors arising. If an agent explains and reasons with traders, it satisfies them more than if he treats them sharply and curtly. Their complaints must be remedied and explanations given when their demands cannot be acceded to. It must be borne in mind that their patronage is wanted, and this is only to be secured by studying their wants in every way short of inflicting injury upon the company. As far as possible impress upon their minds a favourable opinion of the company, also let an agent be honourable and just in all his transactions with traders.

Carriers that are opponents should be watched closely, and if it is found they are not carrying out agreements to which they are a party, the goods manager should be advised. An agent should take care that his opponents do not give traders unfair advantages, which may be done sometimes without actually breaking agreement, but rather by evading same. This may be done by bribes and perquisites to traders foremen in the shape of so much per package—sometimes by covertly agreeing to take sender's declared weights, it being well understood that such weights will be below the actual weight—or sometimes by allowing a drawback per ton in settlement of accounts for cartage allowance, or on some other pretence. Where a trader keeps horses and carts and would prefer carting his own goods to and from the station, if it is so arranged, and he actually does the work and a carted rate is charged, the trader is then fairly entitled to the customary cartage allowance drawback. If an agent observes one trader who confines his business to the opposing carrier, the reason should be found out, for there must be one: when the reason is ascertained it may then be seen whether it is possible to supplant the opposing carrier, and whether there has been any trickery practised. In carriers opposition, it must be borne in mind by an agent that he has not to deal with dull men, nor soft good-natured men, but men of his own class, as keen and active as himself, and perhaps more so. Many traders, when not railway shareholders, delight to see two railway companies fighting against each other, believing that the rates will come down, for which end they intrigue, playing one company off against the other, and getting remissions from time to time, first from one and then the other; at one time giving traffic to the one company and at another time to the other company. As a manufacturer once told us he liked to have two strings to his bow, so that both could be used at times, and one act as a check upon the other. It should be an agent's policy to be conciliatory, courteous and obliging to traders, but at the same time firm, when the interests of the company are at stake. An agent should not allow traders to entice him to forego the principles of the agreements that he knows to exist between his own company and their opponents. An agent could not place his company in a more awkward and embarrassing position than to cause them to

be convicted, through his action, of having broken through a fair and equally based agreement. Frequently more odium and discredit arises from this cause than twenty times the paltry advantage obtained is worth. It sometimes happens that in agreements companies seek to take advantage of each other rather than to arrive at an equitable working arrangement, hence the company getting the worst feels it has suffered from "sharp practice," and thinks itself justified in adopting "sharp practice" in self-defence to regain its losses. But this is not for an agent to interfere in—he has simply to carry out the instructions which he receives.

Traders naturally do not look with favour upon railway companies agreeing to carry at equal rates, because while two companies are competing, and are suffering a loss by the reduction of the rates, the traders derive so much benefit. Some traders, however, avoid fanning the competition, being satisfied to pay a fair rate.

A little opposition, no doubt, helps to improve an agent, as it leads him to be more active and obliging. If he possesses any energy he is kept up to the mark. He finds that a sleepy, lethargic way of taking things does not answer. Nothing so helps to please traders as attention in little matters, and doing something more than they expected. When they ask an agent to do some little matter as a favour, he should strive to oblige them if it is at all consistent. They like prompt replies to their correspondence, and therefore, an agent should always endeavour to give them a reply *per return of post*, even if it is but to acknowledge their letter, and to say he will endeavour to carry out their request. If an agent will treat traders well and give them special attention, he will satisfy them, and he will find them less exacting and more willing to look over occasional errors or trivial damage to goods.

At the same time that an agent is striving to increase traffic, he must not forget to watch that the regular traffic is not decreasing, for he may have an increase on the whole and yet a decrease in particular cases.

In order to have constantly at hand the means of ascertaining from day to day the exact position as to the commodities constituting the staple traffic of the station get a foolscap book and rule columns down the side for each day of the month. Open separate accounts on this plan in different parts of the book for each kind of traffic, such as wool, grain, potatoes, glass, packs, hardware, eggs, butter, or whatever may be the staple traffic. If this tonnage is collated every day and posted up, the clerkage in doing it will not be heavy, while, if it is left for a week or a month it becomes a serious piece of work. Take a clean sheet of foolscap paper and carry each monthly total into it, and then one sheet of paper will contain the statistics of that particular traffic for several years; and then, if the foolscap book should get lost, the private analysis of totals will prove a storehouse of information.

When an agent finds a decrease of any one commodity, by referring to his invoice books, or perhaps the ledger, he may easily see which traders have not been sending their average weight. These

persons should be seen to inquire the reason. It may arise from a slack trade, a glutted market, a loss of trade from competition or too high rates of carriage to compete with houses in other districts, or from various other causes. The object is to find out if it results from anything that is within the control of the agent or his goods manager, and if so, to try and have it obviated. Without noting these statistics you may slumber on, ignorant of where your decrease takes place, unless it be a striking one, and, therefore, without making any effort to remedy it.

The development of local and the retention of all existing traffic are questions of vital importance, and it becomes, therefore, a serious consideration whether the organisation intended for the accomplishment of these ends is in all respects as perfect as possible. No doubt all is done, in an administrative sense, that is thought likely to prove beneficial. The projection of new lines calculated to divert and intercept traffic is opposed, and demands to accommodate new traffic and to adjust rates are acceded to when they are deemed conducive to a company's interest. But this is more in a negative sense, when adequate station accommodation is afforded. In a few cases where the initiative is taken, we frequently find it deputed to the carting agents. A manager, with his numerous duties, cannot continually mix among traders throughout the various districts of his line, and from knowledge so gained, anticipate and carry out measures that will develop and preserve traffic. Station agents cannot always be depended upon to perceive these things and properly set them forth. They are necessarily much confined to their stations, and we find that they frequently lose the power of perceiving things which are daily before them. It would seem that everyday routine dulls the mental perception and sensibility, and that attention is not aroused by matters which, although trivial in appearance, are often very important in their nature. Here the traffic canvasser steps in, and by canvassing and observation, learns the wants of the public, and where and how they can be best accommodated to the advantage of his company: he tests the feelings of the traders, canvasses for their favour, and listens to and makes known their complaints; in fact, he collects information that traders would not trouble themselves to formulate upon paper, either as complaints or advice.

It is an admitted fact that the more direct and intimate the communication between a company and its traders the better it is for both. The relations between the two have not always been direct, the carting agents in the past having to a large extent been the medium of communication. Before competition became so rife there did not appear much harm to the companies in allowing this state of things to exist, as carting agents could often smooth over a difficulty, but of later years the opinion on this point has become modified. It has been seen in some cases that carting agents have so ingratiated themselves with traders as to have acquired the power of diverting traffic to a competitive company. This seems a strong reason why traffic canvassing should be recognised as an organised arm of the railway service proper, and a direct medium between managers and the public. This is the

more desirable, because it is quite evident that goods managers and station agents cannot become the medium to the same extent as the carting agents have been, owing to their duties being already too manifold. What is required is a direct communication with traders that the company itself may watch the indications of public opinion, instead of receiving a coloured version through their carting agents.

Hitherto, though traffic canvassing has been put into force in a number of central towns and county districts, it has been directed more particularly to the senders than the consignees. The officer at each station generally thinks far more about the traffic which he can obtain to send forward than that traffic which he can induce to come to him, inwards, from other stations. This results in the canvassing force being partially mis-directed, and from this cause it frequently does harm, particularly where senders are continually pressed for traffic which they cannot control. A canvasser then degenerates into a "tout" and a nuisance, and his company sinks in the estimation of traders. We do not wish to convey the idea that canvassing senders is unnecessary, but we contend that it generally engrosses too much attention, while the canvassing of consignees is lost sight of and looked upon as secondary.

The choice of route by which traffic is to be transported is controlled either by the consignee or sender, but the former has generally more power than the latter, because the consignee being the buyer, it is to the special interest of the sender or seller to satisfy and please him. When this rule varies it is where the sender pays carriage, and therefore it is generally conceded that he has then the right of choosing his own carrier. But even in a case of this kind, the sender is very often induced to employ the carrier preferred by the consignee, provided the rates are equal. If this proposition is correct, as experience leads us to believe, the best policy to be pursued is to concentrate, as far as possible, the traffic canvassing force upon consignees rather than upon the senders. This policy has been carried out in places by some companies to some extent, but to produce more effective results it requires to be systematically conducted under some centralised organisation.

The consignee who is expecting and waiting for his goods, is more accessible and will enter more freely into conversation, and give more information and attention to the subject of carriage than a sender who clears his hands of the matter when he has passed the goods into the carrier's charge. In the one case the consignee is expecting and desires to get his goods to sell by retail to requiring customers, while in the other, the sender has already sold his goods and only wishes them cleared out of his way. The reason why canvassing has been concentrated upon senders, rather than consignees, no doubt is, that the labour and expense are less in the former case, owing to the sphere of action being more centralised at large towns and manufacturing centres. It is also likely that senders at one time had more control than they have exercised of late years. Competition has altered railway traffic canvassing, and induced some active companies to give more attention to the canvassing of consignees.

Indeed, the tendency of competition is in this direction, and those who would keep their own share of the traffic must do all they can to ingratiate themselves with the consignees. There is no doubt senders, by selling their goods carriage "to pay," have lost much of the controlling power, and this is more observable at competitive points where canvassing is active; the real control rests with the buyer or consignee, and while it enables him to confer a favour upon a competing company he very naturally will be led to exercise his power.

The acquisition of information is to the traffic canvasser but the means to an end, for it is always more to the purpose if he asks a trader for a particular lot of traffic rather than for orders in a general way. Now, useful information is most difficult to acquire, particularly where the senders are canvassed, because they as sellers and shippers of goods are naturally very reserved as to their customers' names and residences, whereas the consignee is more communicative and will freely tell from whom he expects his goods. Thus, if a traffic canvasser who canvasses consignees will quickly send to the traffic canvasser at the sender's town a notice of goods ordered, a united influence can be brought to bear upon sender and consignee for a particular lot of goods. If there is no unity of action, canvassing is one-sided, and in nine cases out of ten a useless expense. Traffic canvassers at one place have frequently no knowledge of their fellow canvassers at other places; indeed they are sometimes ignorant of the towns where traffic canvassers are kept, if the towns are far away. How then can there be any unity of action between them? In our opinion, where there is competitive traffic, the canvassers and station agents should be brought together monthly; in fact, they should hold a district monthly meeting, presided over by a responsible officer. This would lead to an interchange of information and knowledge that would strengthen the hands of each man when he returned to his own district. It would also infuse a new stimulus into the performance of their duties. Of course minutes would be kept and copies distributed, and by this means all would derive an improved knowledge of traders in distant competitive towns. At present much information comes out in conversation of which traffic canvassers take no permanent record, because it will not enable *them to secure and report* any traffic for their own town, and because they are not always made to understand the use to which such information may be applied when placed at the disposal of a traffic canvasser in a distant town. The compiling of information for reference seems to be entirely neglected. Every traffic canvasser in canvassing for traffic should have in his possession a list of the towns to which the principal senders upon whom he calls send goods; he can then ask a pointed question as to whether they continue to send their goods to such towns by his line. In the same way a traffic canvasser canvassing consignees should have a list of the principal firms and towns from which they receive goods, and he likewise can then make a pointed inquiry. When a canvasser leaves a company he should not be allowed to retain or take copies of such lists. In this way the two canvassers would work into each other's hands, and

the more they interchanged communications the better it would be for themselves and their company.

The inquiry of the traffic canvasser when he calls upon a trader now is generally limited to—"Have you anything for our line to-day?" The want of compiled information prevents him putting a pointed question likely to draw forth information on current matters. The traffic canvasser should strive to ascertain what traffic *has been lost*, rather than to learn what will be sent in the ordinary course whether he calls or not. It is difficult to compute the mass of useful information that could be compiled by centralising the labours of traffic canvassers and station agents in a monthly conference—it would give a healthy impetus and effectually test their activity and perseverance. Were these measures carried out, the canvassing for traffic would become an organised canvass and many things would fall into shape that it would be premature now to shadow forth.

One of the great principles of railway organisation is the sub-division of labour, but that sub-division becomes injurious if the results of the labour are not brought to a focus and rendered of service. The particles must be brought together and consolidated. Traffic canvassing, unlike some other sections of railway business, cannot be arranged and then left to go on mechanically like clock-work. It mainly depends upon the collection of floating information and the watching of fluctuating circumstances. It is not capable of being centralised like many other matters because of its individual character. The greater part of the information to be collected is not required by a manager for executive purposes; it is merely information on matters of detail, and only useful within the circle of traffic canvassing. For these reasons it is argued that traffic canvassing, to become more effectual, must be specially centralised. It should be made instrumental in gathering and compiling information relating to traders, which, after being centralised, should be re-distributed among the canvassing staff. It is detrimental to a company to be without a proper record of the facts bearing upon this branch of the business, and to permit a traffic canvasser to retain in his memory only, information respecting traders which he has been collecting over a period of perhaps many years, and, if that canvasser leaves the service, becomes lost. If information were compiled in the way described, then any intelligent man in a short time might qualify himself as a traffic canvasser for any particular district, and pick up the fallen threads. The information which a traffic canvasser requires is in many respects precisely of the same character as that which is afforded to a commercial traveller when he is about to commence a journey over new ground. He obtains from his firm a list of the persons upon whom he is to call at each town—ascertains whether they are large or small buyers—whether sound or doubtful, and how he is to deal with them.

It is to the interest of a company to make their traffic canvassers as acceptable as possible to traders, and hence they should have a good address and appearance. It is unwise to make use of them as messengers to settle disputes, to arrange claims, to collect demurrage,

or to come in contact in any antagonistic way with traders. When this is done the canvasser labours under a disadvantage, for he has often to ask a favour from a trader with whom he has perhaps had to arrange some disagreeable matter. On the other hand, greater force is given to the canvasser where he is made the medium or messenger to confer a favour upon a trader.

What the canvasser is, and what he should be, is worth a little consideration. He should not be a canvasser in the sense of "importuning" or "entreating" for traffic, else in his calls upon traders he is apt to meet with an amount of resistance and disfavour which damages the interests of his company. Traffic should be sought without an unfavourable impression being created. A more appropriate name for the traffic canvasser would be "town traveller" or "traffic agent." The former would entitle him to the courtesy and bearing given to a respectable commercial traveller, and the latter would certainly not convey the idea of his being a "toutier," which to many the title of traffic canvasser now conveys.

The duty of the town traveller is to ask for traffic from merchants, manufacturers and tradesmen. The manner, style and language he adopts in the performance of this duty, may be construed by the trader into a request for a favour, therefore it is of importance that the bearing of the town traveller should be such as to reflect credit upon himself and his company. He may *beg* for traffic from a trader in an importuning and entreating manner, which even, if successful, does harm to the standing of the company, or he may induce it by persuasive language, in such a manner as will raise his company in the estimation of the trader. Suppose a first class commercial firm should send out a traveller, with but an indifferent address and appearance, deficient in conversational tact, and with a repelling and hesitating manner, would it not be likely to damage the business and prejudice the respectability of the firm? So in the same way with a railway company. Yet sometimes we find town canvassers of rather an inferior type, and then they do more harm than good.

A town traveller should have a calm firm bearing, a polite and easy manner, and a clean respectable appearance. He should be fluent in conversation, familiar with the leading topics of the day, and be pushing for business without verging upon importunacy. To entreat a trader after he has said "No" decidedly, is usually unwise, except in very special cases, because frequent repetition in asking will be likely to verge on to supplication, which would have an injurious tendency, and in fact "cheapen" the company.

CARTAGE OF GOODS.

Company's agents' servants are legally the company's servants—late collection of goods—collection sheet *versus* senders' notes—sheets for making delivery—consignees refusing to sign for goods—offering packages of goods before signing—refusal of goods—consignee not to be found—delivery by company to carter—checking goods into carts—extra cartage—sorting goods into districts—inspecting consignees' signatures on delivery sheets—company's horseman's duties—timing carters in and out with loads—paying carters by a percentage—cost per ton of cartage—cartage account between company and carter—agents' uncollectable debits—disputed charges—terminal allowances.

THE collection and delivery of goods to and from a railway station is sometimes performed by a company's own carts, and sometimes by those of a carting agent, who is paid so much per ton for the service. In the latter case, the carting agent and his servants are, as between the company and the public, the servants of the company; and in all matters in respect to the contract of carriage, the company are responsible for the acts of the carting agent's servants. Thus it becomes necessary that there should be a clear line of responsibility between a company and their carting agent, so that when failures and omissions occur, it may be easily known whether they are committed by the servants of the one or of the other. The remarks under acceptance of contract and delivery of goods treating of delivery and collection, when occurring at the station, equally apply to the collection and delivery of goods by the carters, at the premises of senders or consignees. The particular rules concerning the receipt and delivery of goods must be carried out by the carting agent in receiving and delivering goods from the public, and subsequently followed by the company when receiving and delivering goods from and to their carting agent. This calls for a defined written arrangement between a station agent and the company's carting agent, so that the latter shall not receive goods from the public, except upon his own responsibility, unless he receives them upon the conditions that the company have laid down.

Although a carting agent makes his own arrangements for the delivery and collection of goods, the interference of the station agent is often very necessary, as the two interests are not so combined as to be entirely one and the same. A station agent should exercise the same supervision over the performance of the carting as over any other work. Fix a time with the carting agent for commencing the delivery in the morning, and a time in the afternoon or evening up to which all goods that are unloaded shall be delivered on that day. Give the delivery clerk written instructions to report daily all goods not cleared. Arrange a time in the evening after which no more outward goods will be accepted to be forwarded the same night. If loads of goods are brought in after that time, let them remain loaded

till the morning when you are able to accept them. Require a consignment note with all goods, and if the carting agent does not obtain one, refuse the goods until he makes one out. Circumstances at times may of course cause a slight variation of these rules.

It will be well to remark here that it is illegal to accept goods to forward the same night at a later hour from a company's carting agent than from any other person, even when it is assumed that the carting agent is, from a legal point of view, actually the company, still the company as carriers may not serve even itself better than it serves its customers, or the legal question of undue preference comes into play. Nor is a company when actually using its own horses and carts in any better position. This arises from the fact that the company are not carriers by act of parliament while they really are a railway company by act of parliament. Railway companies have added the function of carriers, plus the function of being the owners of railroads, but the law still holds them separately liable under each head.

At some stations collection sheets for outwards goods are in use, and in most cases are rendered by the carting agent who then retains the original consignments. These collection sheets have advantages and disadvantages. Being uniform entries, and the constituent parts of the consignments condensed on to one sheet, goods can be checked more quickly from the drays by the aid of these sheets than when a checker has one or two dozen small notes, which he has to read over to arrive at the points of the consignment. But against this we have (1) the goods are forwarded on a *copy* of sender's consignment, which copy may contain errors; and although the carting agent is responsible for their correctness, yet such errors occasion annoyance to the public. (2) The company have no check upon the responsibility they have incurred through their carting agent accepting consignments, until, perhaps, it is too late to rectify an error without loss. (3) In loading into trucks, invoice clerks and checkers cannot clear as they go, and the collection sheets have to be handed backwards and forwards from one to another at a loss of time, until the men work off the entries of the particular goods for the trucks or districts to which they are loading.

Upon the whole, therefore, collection sheets, except under certain circumstances, do not meet with our approval, for in using them correctness is apt to be sacrificed to gain a slight advantage in time. If that slight advantage should be indispensable and an agent must work with collection sheets, he should demand to have the *original consignment notes* as well, and should every morning, or, if possible, which is better, every night, before the invoices are tissue copied, check these original consignments with the entries in the invoices.

The carting agent can be given a tissue copy of the collection sheet, which is a record that should answer his purpose much better than sender's consignment notes. Stipulate with the carting agent that his carts commence to collect and bring in outward goods as early in the day as they can be got from the senders. An agent can then get plenty of time to sort the outwards goods provided there is sufficient platform space for the purpose. By calling upon the

principal traders an agent may generally induce them, by a statement of the facts, to get some of their goods ready early in the day.

Sheets for delivery purposes far surpass the old system of delivery books, and for these reasons—(1), If a book is lost by a carter, not only the signatures for the goods delivered that day, but also many hundreds of other signatures are gone. (2), Books, from the constant rough wear day after day, come to pieces, and the leaves get lost. (3), The amounts in the delivery books or sheets paid by consignees should be checked the following day with the amounts on the invoices, so that errors in money, *underpaid* or overpaid from incorrect entry in the delivery books or sheets, may be *at once* rectified. With delivery books this cannot be conveniently done, as they are constantly out, and in one or other of the offices. (4), From books being constantly out with the carters and in carting agents' hands, they cannot be obtained for correspondence reference when wanted, and clerks have to wait for them. With sheets these objections do not occur; each carter has one or two sheets during the day, and at night he delivers them up with his cash. The carting agent can take a tissue copy for his record. Next morning the entries and accounts can be checked with those on the invoices, and errors *at once* found out and rectified. The same man who checks them also sees that proper signatures are obtained, and then the sheets are tied up, or gummed into a skeleton, and *are available for reference at any moment*.

In special cases some particularly cute or litigious consignee may get possession of goods from the carter and then refuse to sign for them; if the carter cannot recover the goods he should, on his return to the station in the presence of the agent, sign an endorsement on the delivery sheet that he delivered the goods, giving the date and hour. The agent or other suitable person should attest this endorsement, marking *the date of same*. If necessary at any future time the carter can, for one shilling fee, make a sworn affidavit before a magistrate that he delivered the goods. Carters should be wary of the same consignee in future transactions, and adhere strictly to the legal point of delivery, which is *on the consignee's door step*. With the delivery sheet in one hand and the other hand upon the package, the carter should tender the goods and demand a signature, and if same is not given, cart the goods back to the station.

Where packages are outwardly to all appearance in good condition, a consignee should not be allowed to open or unpack the goods until he has actually taken delivery and signed for them.

If goods are in loose order and without doubt damaged or pillaged it is then better for the goods to be opened in the presence of the carter and the extent of the damage or deficiency ascertained, so that the company may not suppose afterwards that the consignee has exaggerated the loss.

When consignees refuse goods and they have to be carted back to the station, the delivery note, with the cause of refusal written across it, should be handed to the correspondent clerk who deals with such cases, and his signature taken for same. The matter then becomes a correspondence case (see under Correspondence). The cart-

ing agent or his man should also get a receipt for the goods on bringing them back to the station, and the goods should be put aside carefully, if possible under lock and key, and entered in the "goods on hand" book.

If the goods refused consist of fish, meat, game or perishables of any kind, they should be sold at once; a salesman of some repute should be selected, so that, in the event of legal proceedings, he would be an eligible witness to prove the sale at the current market rates. This course is sanctioned by the practice existing between the companies parties to through booking.

When a carter has instructions that, in certain cases, he may leave goods with a consignee without the carriage being actually paid, the delivery note should be signed by the consignee as well as the delivery sheet, the object being to enable the carter to prove that he did not receive the cash, otherwise it may be supposed that he received the money and retained it. This should be explained to the consignee by the carter.

If a carter is unable to find the consignee by the address upon the goods, or on finding the house finds it closed, he has no alternative but to cart the goods back to the station. The course to be then observed is to write sending station to see sender, and either get better address or fresh instructions for the disposal of the goods. In case the carter may have blundered, it is well to send an advice note by post to the address on the goods, as the post office people may succeed in finding the consignee, although the carter failed to do so.

It is a wise precaution to obtain the carter's initials on the delivery sheets or books for the goods when he takes each load. If this is not done and a carter steals a package, or damages the goods in delivering them, an agent is unable to prove culpability on the carter's part, as he is very likely to deny being guilty, and there is nothing to depend upon but the recollection of the delivery porter delivering the goods to the carter. It is well also for checkers to initial the collection sheets, as an acknowledgment of receiving the outward goods from the carters. The beginning and ending of responsibility is important. If collection sheets are not in use, the carting agent should get a receipt in some other form. He may perhaps enter the consignment notes into a delivery or record book before passing them to the company; if so, the entries in that book might be initialed. Do not agree to any system entailing unnecessary work with regard to the giving or receiving of signatures. All signatures should be given at *the time of delivery or receipt*.

The company's checkers should be forbidden to allow goods to be taken off the platform and put on the cart unchecked. The checking should be done at the *moment of the act of loading*, and not afterwards when the cart is full of goods. Goods in the latter case cannot be properly checked. If the whole of the work of checking the goods on to the carts is not done by the agent's checkers, he should certainly have one or two checkers, and no goods should be loaded and checked on to the carts by the company's delivery checkers, unless one of the agent's checkers is present.

Occasions arise where extra cartage is chargeable upon goods that have to be delivered beyond the cartage boundary. Carting agent's clerks should *on no account be allowed* in such cases to mark the extra cartage on the delivery notes. This important matter of detail should be done by a company's clerk, and the amount charged should be either at the authorised rate or such other reasonable sum as may be determined by the company's official in council with the agent's clerk.

There are various arrangements for delivering inwards goods to the carters. In some cases the carting agent has a man on the platform, and as soon as goods come in, carriage notes are handed to this man, who, after he has checked them with the goods, signs for the notes in a book, and the time he accepts the notes should appear in case of any delay in the goods being carted out for delivery. It is understood that the responsibility of the carting agent then commences. This most certainly is the best arrangement for both parties. At some stations the town is laid out into districts, and a team or two set aside to each. The goods then, as they are checked with the invoices from the trucks, are divided into heaps for each district. The delivery clerk, checker, or person appointed sorts the carriage notes, and as an empty cart comes for a load he checks the goods by the notes into the cart. The carter's initials are then obtained on the delivery book or sheet or in some other form, and he is despatched with goods, notes, and delivery book or sheet. The division of a town into districts saves time, because the delivery book or sheet can be entered up before the goods are unloaded, it being known exactly what each carter will take; whereas if the town is not divided into districts, the delivery books or sheets cannot be entered up until it is known what goods a carter takes, or in what direction his next journey lies. It is indispensable for a carting agent to have a foreman at the warehouse; as without one there is a constant squabbling with the carters as to what each shall take. This results in goods being delayed and not delivered in due course.

Another arrangement for transferring the responsibility from the company to the agent, is a written understanding that the acceptance of the delivery docket carries with it the acceptance of the goods in good order for cartage. In this case, for the protection of the agent, a report book should be established between the agent's foreman and the delivery office. This book should lie in the delivery office, and the agent's foreman should record in this book any complaints he has to make, such as (1), that certain goods, the delivery notes for which he has signed for at a particular hour, are not unloaded or cannot be obtained for cartage; (2), that certain packages are in bad order. The time the entry is made should also be put against each report. If not, then when goods have been taken away from the station, the carter may let them fall and get damaged and come back quickly to the station, and get a report put into the book to make it appear that the goods were damaged before being loaded into his cart. It is better not to recognise any damages unless the agent's foreman points them out at the time of loading into the carts, and the pointing out should be to a company's clerk or foreman and not to a porter.

If the company's carting agent is allowed to have the delivery sheets for checking his accounts, then a fixed day of the week or month should be settled, upon which the sheets should be rendered up. The company's clerk receiving the sheets and signing for them should inspect every sheet to see that an ink signature is held for each consignment of goods in the signature column. If the sheets are kept by the carting agent beyond a few days, then he should be required to allocate a clerk for such inspection, because if the sheets only reach the company's hands a month after the delivery, it would be useless to then apply to a consignee for a signature. The carter in fault may then have left the service, and the opportunity of punishing him will have passed.

If a carter receives a package containing valuables enumerated in the Carriers Act, and over ten pounds in value, and the sender declares the value on the consignment note or even verbally to the carter, the company can be held liable for the entire value, although only the ordinary rate may have been charged and no insurance paid. Legally the carting agent's carter is held to be a company's servant, and the company are bound by his acts.

Where a company perform their own cartage, it is then simply necessary to have a delivery cartage foreman of the better class, who stands in the place of the same kind of employee in the service of a carting agent. This delivery foreman must take an independent standing, and act between the delivery office and the platform working staff. In replacing the cartage agent's foreman, he, although a servant of the company, must fulfil the same check in the conduct of the work as is done by a carting agent's foreman. He must not condone the delinquencies either of the delivery office or the platform staff, but rather discover and publish same, seeing that he is responsible for getting the cartage actually performed.

It must rest with the delivery cartage foreman to specially see to the early delivery of shipping goods, dead meat, fruit, newspapers and commercials' luggage, so that complaints may be avoided in respect to such goods.

In addition to the cartage foreman a horse-keeper is required, and he is, to a greater or less degree, under the control of the cartage foreman. Practically, however, if the horse-keeper be a good man, he has complete control over the care of the horses, harness, vans, trollies and carts, and also the feeding of the horses, their health and fitness for work. Each carter may or may not have to clean his own horse and cart, according as the practice varies at different stations. The horse-keeper should turn out the horses and carts in working condition and in good time, just as the locomotive department are responsible to turn out an engine fit to do the necessary work. The discipline of the carters as to their general conduct, time keeping, sobriety and efficiency, rests with the cartage foreman. A time book should be kept by the cartage foreman, or under his direction, showing the actual time each carter goes out and the actual time he comes back, and the class of load he took out and brought in, or whether he went out empty to bring in a load, or came in empty after taking out

a load; the town district he goes to should also be given, to indicate the extent of ground he may have had to cover. This information is useful to see the number of loads delivered during the day by each carter, and in case the carting staff leave goods undelivered at the close of the day. A book of this kind may be used as a crucial test of the efficiency of each carter. There are many conflicting elements in attempting to gauge the diligence of carters, in quickly getting free of the goods entrusted to them for delivery. An absolute check is impracticable, but, at the same time, the conduct of the work may be surrounded by certain checks that will keep the men on the *qui vive* of expectancy, in case any among them have an inclination to let their work slide. One or two smart carters who have proved their efficiency will form a ground for comparison with the slower men: change these at times from one "district delivery" to another, to see if they can beat the other men in the matter of time on the same district. Thus after a while, and with a close scrutiny of the carters' time book, as much work may be enforced from the men as can be fairly expected.

When through booked goods are handed by one company to another company in the same town, the goods should not be accepted unless the through invoice is handed over at the same time. Temporary invoices or dockets, "particulars to follow," are objectionable; and while such makeshifts are resorted to and accepted, no energetic steps are taken to improve the conveyance of the through invoice with the through goods. Carting agents should have written notice that they will be charged carriage on all empty packages they may bring into the station, and they will then take care to obtain the carriage before accepting the packages from senders.

A plan pursued by the leading carting agent in Dublin is to pay his carters threepence on the shilling of their earnings for him. Daily the total weight on each carter's delivery sheet is added up and the cartage per ton coming to the carting agent calculated, and then threepence in the shilling on that amount is posted up to the carter's credit to form one day of his week's pay. Payment to carters in Dublin, other than railway carters, is frequently carried on upon this principle. One danger, however, to be watched, is that a carter does not, for his own interest, take too much out of his horse or drive him with heavy loads in a manner to prematurely wear out the poor animal.

It is necessary to keep a check upon the cartage cost per ton. This can be made up once a week, fortnight or month as convenient. The items will be—(1), wages of carters, horse-keepers and others; (2), provender, less sale of manure; (3), repairs, renewals and stores; (4), veterinary treatment and shoeing; (5), interest on vehicles, horses and buildings. After charging the interest on horses and vehicles for ten years, it is sometimes held that their cost has been fully charged and that they may be omitted from the computation, and if still working, count to the good in reducing the cost per ton. In computing loss by depreciation and wear and tear, the percentage that may be taken on the first cost per annum is fifteen per cent. on horses, fifteen per cent. on carts, and fifteen per cent. on harness. Repairs to vehicles

are said by carting agents to average the sum of the original cost in three years.

The payment for cartage between a company and their carting agent often entails very voluminous account keeping. The payment being by the ton, however, it is simply a weight account; but this, even, is very troublesome when the proportion of the traffic carted by the agent and carted by the public are about equal. In some cases the carting agent renders a weekly account, in others a weight book is kept under mutual inspection and control, and the total weight made up each week or month, but still constant squabbles will occur. The consciences of carting agents' servants are so elastic that they endeavour to get every pound weight of goods they can into their weight book, it being quite immaterial to them whether or not they perform the cartage on the goods.

Where the weight handled by the carting agent is limited, then one or other of the aforesaid plans answer the purpose; but when the carting agent handles the bulk of the traffic, the numerous entries then become very troublesome.

Where the entries are sufficiently numerous we prefer to combine the cartage account with the station abstracts, and deal with invoice totals rather than individual entries. This may be done after the following manner:—

With inwards invoices, after the delivery has been completed, stamp the invoices with a stamp similar to the one here given.

	Tons.	Cwts.	Qrs.	Lbs.
NOT CARTED _____				
	Tons.	Cwts.	Qrs.	Lbs.
CARTED _____				
SMALLS No. _____				

In the delivery office have each invoice dissected, and a summary made within the stamp showing the weight and debit of the carting agent and the company. When necessary, the cwt. for each small may be shown separately. This plan may be easily carried out, as the delivery sheet references, put in the margin of the invoices, will show the entries of goods carted by the agent; and where no such reference has been inserted, the weight and charges will usually belong to the company. The "to pay" debit will then be extended into the "porters" and "posted" column, and the "posted" column may be treated as the agent's debit; or where the company have both "porters" and "posted" items of their own, then a third column may have to be used to which the agent's debit can be extended. In many cases the whole of an invoice total will refer to the agent, or, as it may happen, to the company, and then the process is the more simple, because no dissection, but only the summarising, is necessary. The invoices are then passed to the abstract office, and here it is necessary to work the inwards abstract clerks in pairs, one to represent the

company and the other the carting agent. At stations where the traffic is heavy, more than one pair may be necessary. The carting agent's abstract clerk should check the summary of the weight and debit before the entry is made. The two clerks then take the invoices, one after the other, and post the totals into their abstract books, the company's clerk taking the full totals of weights and charges, and then extending the agent's weight and debit into extension columns specially provided in his book for the purpose. The agent's clerk simply takes the weight and debit referring to the goods actually carted, as brought into the summary within the stamp, to correspond with the extension totals in the company's book. At the end of the week the two clerks simply total their books and balance the weight and debit totals, and append their signatures to same. The chief accounts clerk sees the work has been fairly done and the agent renders his cartage account on this certified weight return, while the company debit him in total with the "to pay" or "paid" carriage he is responsible to collect from consignees and senders of goods, as aggregated in the extension columns of abstract books. The agent can check in detail his gross debit with the delivery sheets in two ways, either by having the original invoices for a day or two for that purpose, or when he gets the delivery dockets from the delivery office, he can have a clerk to make an entry on "store sheets" from the delivery dockets, and use these store sheets for checking purposes. Of course the totals of his store sheets should be made to agree with the total of his abstract debit accepted from the company.

With outward invoices the same process is applicable, but an initial letter or the agent's name must be written on the invoice, and appear on the buff tissue copy, to enable the dissection and summarising to be made for insertion within the stamp. This, however, may be obviated by making separate invoices to each station for such goods as may be collected by the agent, and then the dissection and summarising is got rid of altogether.

Notwithstanding every effort, items will be debited to the carting agent which he will be unable to collect, and for which he will subsequently require credit. This may be met by the carting agent adopting the use of "disputed charges sheets" or books suitably ruled. These sheets should be furnished to the company at fixed dates, say on the fourteenth of February, for amounts arising during the month ending the last day of January, and so on. Unless the carting agent is kept continually under pressure, these "disputed charges sheet" items will run into arrears, and the consequence will be the carting agent will accumulate these items, and then on some fine day flood the company's accounts office with same. When the carting agent's "checking" is behind there is great danger of these items accumulating, and it greatly disarranges the current work of the company's accounts office to have to deal with arrears negligently or carelessly held back. The time and date the sheets are received from the carting agent should be marked on them at the time of receipt, and all possible diligence used to investigate the amounts, and either give the carting agent credit for same or throw the disputed items back upon him, with such additional information as may afford him a clearance.

TERMINAL AND SPECIAL ALLOWANCES AT STATIONS FOR TERMINAL CHARGES, ACCORDING TO THE PRACTICE BETWEEN THE RAILWAY COMPANIES PARTIES TO THROUGH BOOKING.

Kind of Traffic.	Cartage.	Conditions.
	s. d.	
Carted goods, - - -	8 6	per ton in London.
Do., - - -	4 0	do. at other stations.
Mineral traffic, - - -	0 9	per ton, but for loads of less than four tons, then 1s. 6d. per ton, the "station to station" terminal.
Live stock traffic, - -	2 6	per waggon forwarding coy.
Do., - - -	1 0	per waggon receiving coy.
Station to station traffic, -	1 6	per ton.
Do., - - -	- -	if less, but charged as two tons, then allowance made as for two tons.
Do., - - -	1 6	per ton additional over ordinary allowance on articles over ten tons, excepting locomotive engines on wheels and minerals.
Low class traffic charged somewhat higher than minerals and pig iron (minimum 4 tons), -	1 6	per ton, "station to station" terminals allowed.
Coal and coke, - - -	0 9	per ton, in the absence of any special arrangement.
Traffic charged at or below 10s. per ton when three or more companies are concerned, -	1 6	per ton, same as on "station to station" traffic.
Traffic invoiced at 8s. per ton or under, - -	0 9	per ton, same as minerals.
Parcels, - - -	0 1	per parcel to forwarding coy.
Do., - - -	0 2	per parcel to receiving coy.
		The parcels are counted by number and not aggregated into consignments, counting a consignment as one parcel when from one sender to one consignee.
<i>Special Passenger Train Traffic—</i>		
Fish (not carted), - -	0 1	per cwt. at each end.
Butter, - - -		
Fruit, - - -		
Eggs, - - -		
Poultry, - - -		
Fresh meat (not carted)		
Excursion traffic, - -	- -	10 per cent. for printing, advertising, &c., to company issuing tickets.

SACKS ON HIRE.

FORWARDING STATION.

The following are the principal points to be observed in dealing with sacks:—

1. The charge for hire is usually a halfpenny per sack per week.
2. Sacks should not be given out to convey other goods than grain and seed as allowed by the company's regulations, the usual kinds being wheat, oats, barley, Indian corn, peas, beans, rye, tares, rapeseed and linseed.

3. A signature must be obtained for the empty sacks when given out on hire.

4. The hire must be collected at the time the sacks are given out to be filled.

5. *Four* days is the time allowed to fill the sacks and bring them back to the station.

6. Sacks are not usually lent to convey grain to colliery sidings nor across the sea.

7. A "paid on unextended," according to scale, should be charged for "sack risk" in addition to hire, when sacks are sent to foreign stations.

8. An invoice for sacks must be sent to the actual destination station, even though the grain for want of a through rate is only invoiced to an adjacent station.

9. Sixpence "paid on unextended" is a charge to be made for every twenty-five sacks returned empty to a depôt on a foreign line to be taken specially to account as a debit in balance sheet.

10. Each bundle of returned sacks sent to a depôt should be addressed and the name of sender and forwarding station given on the address card.

RECEIVING STATION.

1. Consignee must give a separate signature for the sacks holding the grain, or the delivery must be withheld and consignee forced to shoot the grain into his own sacks at the station.

2. Sacks accepted holding grain, must be returned empty by consignee to the station, fourteen days from *date of invoice*.

3. Sacks returned empty, must be taken out of the bundles, identified and counted singly, before a signature is given for them.

4. Sacks holding grain, and less than ten in number, should not be delivered, but the consignee should be required to shoot the contents at the station, unless he be a regular customer holding other lots of company's or company's contractor's sacks.

5. Demurrage according to scale must be strictly enforced and collected monthly, refusals to pay being reported.

6. Foreign companies' sacks should be carefully counted and returned to the depôt of owners, and the number of sacks and number of bundles stated on invoice.

7. Sacks holding grain reconsigned to another station, the charge as per scale must be sent forward "paid on" and "to pay."

8. A weekly check should be kept upon sacks out on hire, and if a reasonable time for their return has expired, say three months, the matter should be reported to the officer of the district or the sack contractor notified of the undue detention.

ACCOUNTS AND STOCK KEEPING.

1. There should be a proper lock-up place for the storage of sacks at stations.

2. Not more than a week's probable consumption of empty sacks should be retained on hand or requisitioned from the sack depôt.

3. Surplus stock should be sent on quickly to sack depôt.

4. Sacks wet or damp should not be kept in bundles but spread out to dry.

5. Sacks are most easily counted and are best kept by being smoothly folded in the centre and laid neatly, one on the other, in heaps.

6. Stock-taking of the number of empty sacks on hand should be done weekly or monthly, according to regulation, and a balance made.

7. The record of the sacks inwards and outwards is kept in a book ruled suitably, one side being used for sacks forwarded and the other for sacks received.

8. The number of sacks in the sack book should be totalled weekly and the forwarded total deducted from the received total. The difference should represent the sacks to the debit of the station, and stock should be taken to prove same.

9. The two pages of the book should be ruled off right across, so that the line on each page may be opposite; the balance of sacks to the debit of the station should then be brought forward under this line on the received side of the book as a commencement of the work for the next week. Part of the balance may be—(1), sacks on hand empty; (2) sacks on hand full; (3), sacks on hire in possession of traders. The sack ledger should show this latter total.

DELIVERY OF GOODS—INWARDS.

Appliances and accommodation of space to admit of goods being handled—process of bringing the inward waggons to unloading platform—checking goods on to platform and into delivery carts—plan 1—plan 2—plan 3—damages, unloaders' report book—sorting goods on platform—loading goods into carts—process in the delivery office—checking invoice charges—delivery notes—"till called for" goods—"order" goods—transfer of the ownership of goods from one consignee to another—advice notes—delivery sheets—cartage allowances—collection of carriage—"weigh, charge, and advise" goods—"particulars to follow" goods—unentered goods—empty returned packages—"goods on hand" book—grain book—gate passes—storage charges—ropes.

APPLIANCES AND ACCOMMODATION OF SPACE TO ADMIT OF THE GOODS BEING HANDLED.—The remarks mentioned under outwards traffic are equally applicable to inwards traffic. Accommodation that will admit of speed in unloading and handling the traffic, is even more urgently demanded for inwards than for outwards traffic, particularly at sea ports where there are shipping goods, and likewise at other stations where there is a dead meat, poultry, fish, fruit and vegetable traffic. The form of train-load shed is here also the needful appliance. Suppose that in working passenger traffic at a terminal station, the platform only enabled half a train's length to be put alongside at the one time, and that after the passengers had alighted from this half of the carriages, then the empty carriages required to be shunted out, and the other half still loaded with passengers to be shunted into position. The passengers in the second half, assuming the carriage doors were locked, would raise such a clamour as to put a nervous station agent quite "off his head." When we consider the question of speed, the appliances for dealing with passenger traffic are equally applicable and necessary for dealing with goods traffic; the only difference is, that passengers can clamour and thus get what suits their convenience, while goods can only enter a silent protest by their increasing bulk and tendency to produce blocks.

THE PROCESS OF BRINGING THE INWARDS WAGGONS INTO THE WAREHOUSE OR UNLOADING PLATFORM.—This process is of the very first importance, and is often impeded from one cause or another. Where cattle and goods waggons are mixed on a train arriving at a terminal station, the cattle when for shipment necessarily have to be first unloaded. For this purpose the cattle waggons must be put alongside a cattle platform, which is, perhaps, some distance

from the warehouse to which the goods waggons have subsequently to be taken. If the cattle and goods waggons are mixed throughout the train, the labour and time is so much greater. This, however, can in some measure be avoided if the guard during his journey is made to keep the goods waggons on his train together, and separate from the cattle waggons. Much depends upon the arrangements in the yard and the facility of access, by convenient points and crossings from the arrival siding into the cattle platform and the warehouse. Badly planned sidings create great delay and considerable expense for shunting horses or shunting engines. At a terminal station it is of enormous advantage when a complete goods train can be put at once alongside a warehouse platform, and, in fact, that such platform can constitute the arrival siding. Whether goods may be carted away upon being unloaded or not, it enables the waggons to be liberated at once from their loads, and makes them available as "empties" to load outwards goods. It also contributes to keep the yard from being overcrowded, because when overcrowding results from an excess of empty waggons, these can easily be worked to another station. There should be no impediment to an easy access into a warehouse for inwards waggons, and nothing should prevent the quick unloading of inwards waggons containing carted goods. There may be an exception where at stations with only one warehouse for inwards and outwards traffic, waggons arrive late in the afternoon. If unloaded when the goods cannot be delivered that evening, but occupy space on a limited sized platform and impede outwards traffic, it is then better to let the waggons remain loaded until the next morning.

Full waggons of grain and station to station goods are often a source of trouble. Where there is a separate warehouse for grain, the waggons with grain have to be picked out from the waggons containing general goods. This is often done better after the waggons with the goods have been unloaded, but it depends upon which traffic may be the most urgent at the particular station. The same difficulty arises with full waggons of timber, bricks, slates, coal, minerals, &c. Where these are not too numerous to occupy too much platform frontage, it may be better for speed to pass them into and through the warehouse with the waggons containing carted goods, and then afterwards work these "station to station" waggons out to their own particular platforms or sidings. A convenient siding is necessary for "station to station" waggons, where if there be no platform accommodation, consignee's carts can back up against the railway waggons and transfer the goods. Waggons containing timber requiring the use of a crane should be put into a siding convenient for the purpose. It not unfrequently happens that the advice notes for station to station goods are made and delivered to consignees without any inquiry as to whether the waggons are berthed in places from which consignee's men and carts can easily unload and take delivery of the goods. Thus a consignee sometimes sends his cart, and either the goods cannot be delivered or some delay occurs until the waggon is placed in position, where it can be conveniently unloaded. Before the advice notes are sent out to consignees it should be seen (1), whether the waggons have actually arrived; (2).

that the waggons are either berthed, or in a way of being berthed before the consignees are likely to send for the goods.

If consignees do not send for "station to station" goods within the forty-eight hours allowed, it is a loss of waggon power to allow the waggons to remain loaded and the demurrage charge to accumulate. After three, four or six days, as convenient, the waggons should be unloaded by the company's men and a charge made for same.

There is often a looseness creeps in with respect to obtaining signatures for timber, coal and other heavy traffic unloaded on wharfs or outside platforms, and not removed at once. The only way to prevent this is to put in use a special delivery book for this kind of traffic, and fix upon one particular man the duty of obtaining the signatures *at the time the traffic is unloaded*. Such description of heavy traffic is usually in the consignee's charge, and at his risk when unloaded, and consequently the company are entitled to a signature at the time the waggons are unloaded.

At some places timber, slates and other "station to station" goods, in full loads, are deposited upon the company's premises or dock sides for shipment or sale. In such cases one of two plans may be adopted—(1), the ground may be divided into separate spaces and a charge made per week or per month per space, otherwise the articles will be scattered about, and an unreasonable quantity of space needlessly occupied; (2), the rate may include unloading and stacking, and the company's men, or an unloading contractor, can be held responsible to properly stack the goods safely clear of the rails and economically as regards space.

THE PROCESS OF UNLOADING AND CHECKING THE GOODS ON TO THE PLATFORM FROM RAILWAY WAGGONS AND RE-CHECKING INTO DELIVERY CARTS.—Immediately the waggons are placed in the shed, it should be some person's special business to take off the *foreign waggon sheets*, and *when dry or after having been made dry*, to fold them up, chalk on the outside the number and owners' initials, and place them apart from all local sheets. The local sheets should be dealt with in like manner, having due regard, as far as possible, to the requirements of the unloading staff, in respect to the waggons to be first unsheeted. The same remarks apply also to ropes.

The unloading checker should be critical in respect to defective sheeting, and particularly when he finds goods damaged by wet, taking care to enter such cases in his report book, so that the sending station in fault may be written and cautioned. The same remarks also apply when goods are found badly packed or stowed in the waggon.

The unloading checker should then take off, or cause his men to take off, both waggon labels from the two sides of the waggon, and subsequently preserve same on a long iron file in the delivery office. It is a grievous thing for old disused waggon labels to remain on waggons. If it becomes a practice with the men to leave them on, it should be stopped by giving a gratuity of threepence or sixpence for each old label found on a waggon, the amount to be recharged against the person or station in fault.

The practice sometimes allowed of two checkers jointly or separately unloading goods from one waggon should be discountenanced. One checker, and not more than one, should be responsible for unloading the full contents of each waggon. Empty packages, where there is a special checker for same, may be an exception. When two or more checkers take part in the work and any mistake occurs, the man in fault cannot be traced.

In like manner as there are several different plans of shipping and invoicing outward goods, so likewise are there different plans of checking inwards goods out of waggons. Here again the plan to be selected is somewhat controlled by the kind of accommodation and extent of warehouse platform available, as will be seen hereafter.

When goods are received at a station and have been missent or over-carried or uninvoiced and unaddressed, special attention should be given to the matter to keep the company free from claims for delay or detention. If there is any address on the goods, the goods should be sent by next train to the station for which they are intended; if there is no address, the sending station and the officer of the district should be advised both by telegraph and letter, giving marks, numbers, weight, waggon number, and any other information likely to elucidate the destination of the goods.

PLAN No. 1.—The following is probably the plan in general use and has many advantages, but still it is found to have some few disadvantages. After the invoices have been pro-numbered in the delivery office and part or the whole of the delivery notes made out, the invoices are then passed to the unloading checkers, and they stand at the waggon side and "check off" the packages from the original invoices as same are taken out of the waggon. The due arrival or otherwise of the package is no doubt insured by this plan, but the close examination as to the address, condition, &c., is not equally insured. The fact that a package has arrived and in the main corresponds with the entry is taken as sufficient. A difficulty invariably arises between two sets of clerks in respect to the possession of the invoices. The delivery clerks contend for them to make out the delivery and advice notes, while the unloading check-clerks contend for them to check the unloading of the goods; thus where speed is of the greatest importance, as with competitive traffic and at shipping ports, the goods are often unloaded, and the unloading checker, in the absence of the invoice, enters them into a memorandum book. This rough entry is then subsequently compared by the check-clerk with the invoice and the packages on the invoice are "ticked off" from it. We have a strong objection to these rough entries that are neither preserved nor preservable, and in case of dispute can seldom be procured, and even if found are not fit to be produced in any court in the event of legal proceedings. Either the unloading check-clerk should invariably have the invoices in his possession whatever else may suffer, or the entry in the memorandum book should become a formal entry in a book printed for the purpose and kept habitually in the office and not in the unloading checker's pocket.

When the goods are checked from the invoices the person who performs this duty should make clear and distinct checks, with say, the new blue copying pencil, so that he can at any time afterwards identify them. After marking the date and time of unloading he should then append his initials to the invoice.

PLAN No. 2.—Have a warehouse book, and as the goods are unloaded let the receiving checker enter them into this book, as being unloaded at such a time and from such and such a waggon without taking any notice of the invoice. This book may also be used to obtain consignees' signatures when the goods are delivered at the station. There is then no waiting for or seeking invoices. When the unloading is finished, or between times, let an independent clerk check the entries in the warehouse book with those on the invoice and fill in the progressive numbers. When an unloading checker has to make an entry in a book and describe a package, with name and address, marks and numbers, he is far more particular than when a porter calls off, "Jones, a box," the reply to which is generally "all right," perhaps before the entry is actually found on the invoice. Oftentimes it is not all right and goods are received uninvoiced and get mixed on the platform with others, without there being any means afterwards of tracing from what waggon they came, or from what station. This plan, no doubt, occupies more time and requires more care, and, from particular accommodation at some stations, would be difficult to work, but in the main it is most certainly the best. In most cases the warehouse book forms the delivery receipt book for goods carted from the station by the consignees' own carts. On some lines, particularly with some of the Irish lines, where the original invoices are now forwarded monthly to the audit offices with the abstracts, the warehouse book forms the permanent copy of the invoice. In such cases the delivery sheet references have to be inserted in the receipt column of the warehouse book to clear the entry and to disclose the actual disposal of the goods in case of subsequent reference.

PLAN No. 3.—Where it may be found inconvenient to strictly carry out plans 1 or 2, then a medium plan may be adopted. In a sense legalise the unloading check-clerk's rough entry by printing an "unloader's book" something after the following form. Give the delivery clerks free and full possession of the invoices, and let it be the rule for the unloading check-clerks, or some independent clerk, to check off the packages on the original invoices and initial same in the usual way. A separate leaf or half leaf of the unloader's book should be appropriated for each waggon, and if deemed advisable it might be detached from the book and gummed on some part of the invoice, and then the original evidence of unloading would be easily forthcoming at any time.

RAILWAY COMPANY.

INWARDS CHECKER'S BOOK.

Date, _____

Wagon No. _____

From _____ To _____

No.	Description of Packages.	Consignee.	Destination.	Remarks— Bad Condition, &c.
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NOTE.—Size of book, 9 by 6 inches; one leaf may be printed for two small waggon loads, and the next leaf ruled with twenty-five lines, for a larger waggon load.

DAMAGES—UNLOADING CHECKER'S REPORT BOOK.—All remarks as to leakages, damages, &c., should be made legibly on the original invoices and transferred into a report book from which a correspondent should take the facts and advise the sending station. It is a practice between the companies parties to through booking, that unless loss or injury to goods or parcels is reported by the receiving station to the forwarding station within twenty-four hours after discovery, the receiving company neglecting to so report must suffer the entire loss.

This book should be entered up in ink, not in pencil. It is the check-clerk's medium for showing that he has duly performed that portion of his duty which requires the recording of all damages, breakages, errors, and, in fact, anything that is out of the usual course, calling for a letter to be written to the sending station in respect to the goods.

All cases of careless bad loading and hollow sheeting must also be reported to the sending station, and when persistently repeated after such report the goods manager should then be advised.

The following points should be borne in mind by the unloading checkers when making their reports of goods found in waggons damaged:—

1. The probable cause of the damage should be specified—whether bad packing by sender, bad loading, whether apparently done before loading or during transit. The character of the bad loading, if any, should be also minutely described.

2. All general remarks should be avoided, such as "some damaged" or "some leaking," as the number should be counted.

If the cause is not recorded at the time and sending station advised, the culpable and responsible person is lost sight of, and a claim, if subsequently made, has to be paid without the punishment of the man in fault.

Packages containing tea, wines, spirits, tobacco, boots, shoes, silk, or other valuable goods that are specially liable to pillage, most companies order their station agents to have such goods weighed immediately that they are unloaded from the waggon quite irrespective of

whether the packages appear in good or bad condition. Any goods in loose order should invariably be weighed both at the time of unloading and at the time of delivery. Goods in loose order are often selected for pilferage, because it is thought the pilferage will be screened, seeing the goods have been already acknowledged as in bad order.

When the Commissioners of Inland Revenue are satisfied that spirits or wine under bond and in large quantities have been lost by leakage, they will in some cases, on petition, remit the duty, seeing that the spirits or wine have never reached any actual consumer, therefore in all such cases the nearest Inland Revenue officer should be called to the station as a witness to see the damaged goods in the condition as first discovered.

THE SORTING OF INWARD UNLOADED GOODS ON PLATFORM.—As the goods are unloaded they should be sorted and put into certain appointed places. "Till called for" goods, in No. 1; "wait to order" goods, in No. 2; goods for consignees to cart, in No. 3; tranship goods with outward goods, according to their destination; goods for cartage delivery, into several heaps, according to the districts in which the town has been divided. Without places being arranged it would be difficult to find goods when wanted. Goods in bulk, when to be carted, can frequently be loaded on to the carts direct from the waggons, with less labour than if handled across the warehouse platform.

LOADING GOODS INTO CARTS FOR DELIVERY.—In this process there is a variation in the routine at different stations, arising from different circumstances or accommodation. In some cases the goods are put from the waggon direct into the delivery cart, and then the check-clerk's tick on the invoice (or entry in his memorandum book) stands both for the unloading from the waggon and the delivery to the cart. The delivery sheets may then be written up from the original invoice, according as the check-clerk marks the articles as being loaded into the carts. When the loading into the carts is not direct from the waggons, the goods are then generally loaded off the platform into the carts, from the delivery notes. After the delivery notes are made out in the delivery office, from the invoices, the notes can then be sorted and divided into bundles, for the districts of the town, according to the situation of the consignees' residences or places of business. A checker then gets a bundle of notes for a certain district; he goes to the heap of goods for that district, and the goods, as loaded, are checked from the notes into the delivery carts. This process is also described under the head of cartage (which see). The carter while loading the goods on to his cart, cannot be expected to actually perform any check with pen or pencil. He can, however, count the number of packages he puts up, and then, when his load is completed, he can count the total number of packages on the notes, and compare with the number he has put up. If he is well up to his work, he will recollect, upon reading over the dockets, each package he loaded; and, provided that the total number agree, he can conscientiously sign for the lot without much chance of error.

A small lock-up place about the centre of an inwards unloading platform is very useful; it should not be constructed of close wooden sheeting like a room, but rather of lattice work, so that any person inside may be easily seen. It is convenient to put small light packages in it for safety. Dishonest carters, whether the company's, the agent's, or strange men, can easily purloin small packages if same are lying about. The lock-up is also suitable for "till called for" goods when of a light description, and also for "refused goods," "unclaimed goods," and the like.

THE PROCESS IN THE DELIVERY OFFICE, INCLUDING THE PRO-NUMBERING OF INVOICES—CHECKING CHARGES—MAKING DELIVERY NOTES AND ADVICE NOTES—WRITING UP DELIVERY SHEETS AND "GOODS ON HAND" BOOK.—A delivery office should be adjacent to the unloading platform, in fact, the nearer the better to where the goods are handled. If it is not convenient for the goods guards as they arrive with their trains to lodge the invoices in the delivery office with their own hands, which is the best plan, then a perfect system of conveyance should be organised to insure the invoices being *at once* taken from the train arrival platform to the delivery office.

Immediately an invoice reaches the delivery office, that is, as soon as taken from the envelope, *the time the train arrived* should be inserted on the printed line provided for the purpose thus, "11 a.m., 23/3/83." Then each invoice should be progressively numbered in the pro-number book, and the pro-number inserted in large legible figures on the right-hand top corner of the invoice. The object in pro-numbering is to prevent invoices being lost or overlooked, also as a reference by which they may be quickly found when they are gummed into paper skeletons in progressive order.

Having secured a check upon the possible loss of each invoice, the delivery notes and advice notes require to be expeditiously made out from the invoices. It would be of great service at shipping ports, and for perishable traffic, if the delivery notes were made out at the sending stations, which is the custom with traffic on, at least, some of the French railways. The delivery process would be greatly quickened and the labour would be the same, whether done at the one station or the other. We do not think it has ever struck the mind of any English manager, but probably this reminder may lead to a trial of the plan. If, for instance, at Liverpool, which is a non-cartage station, all the advice notes were made out at the sending stations for shipping goods and arrived with the waggons, the advice note carriers could then be despatched five minutes after the goods train arrived. The merchants would get earlier notice, and the bringing on of the clerks to duty at six a.m. of a morning to make out advice notes would be obviated. Many a winter's morning in our earlier days we had to attend the office at six a.m. to perform this not too agreeable kind of work.

Usually the delivery notes require to be made out first, but at a non-cartage station like Liverpool, it is necessary to make out the advice notes first.

In the event of goods being addressed "paid," and charged "to pay," the receiving station agent is not warranted in withholding delivery of the goods for the carriage. If the consignee refuses to pay, then the goods must be delivered, leaving the carriage an open question. The practice between the railway companies parties to through booking is, that the receiving station may recharge the carriage to the forwarding station, provided the address card marked "carriage paid" is attached to the recharge invoice. The same practice applies to passenger parcels.

When invoices are received manifestly dated in error from a clerical error, the correct date should be inserted by the receiving station, and the forwarding station should be advised. The date of the arrival of the waggon named upon the invoice will give a clue to the proper date, as it will be easily known how long a time is ordinarily occupied by the waggon on the journey.

The labelling of books on the outside facilitates their being easily distinguished, and if the periods during which they have been in use are also marked on the labels, a particular book that may be wanted may be picked out quickly from amongst a great number.

CHECKING INVOICE CHARGES.—Before the making out of either the delivery or the advice notes the invoice charges must be checked. As quickly as possible after the pro-numbering is done the invoices should be passed to one particularly experienced clerk familiar with the rates and classification, whose principal business it should be to check invoice charges and extend the "porters" and "posted" items, and having done so, to place his initials on the invoice in proof thereof. All undercharges and overcharges should be distinctly shown, so that the note-clerk in making out the delivery and advice notes may adopt the amended charge, and not write on the note incorrect charges to be demanded from consignees. Nothing gives rise to such bitter complaints from the public as incorrect and excessive charges; while, if the incorrect charge is below the proper charge, it is then extremely difficult to collect, and somewhat humiliating to apply for the undercharge. It is therefore of the greatest importance to have a careful, reliable clerk or clerks, to check the charges; and it is false economy to begrudge good pay to the right class of man, as he may soon earn for the company far more than his salary, in the undercharges he detects and which he is the means of recovering.

In all cases where undercharges are discovered on "paid" amounts, the sending station is responsible to collect same. The receiving station may, however, ask consignee to pay it but not to unduly press him. In the event of the receiving station collecting the undercharge, the sending station must be advised to issue an undercharge invoice "to pay."

The practice between the railway companies parties to through booking is, that under no circumstances shall an invoice be altered at the receiving station in respect to the figures in the weight, rate, paid on, paid, or to pay columns; but if an invoice arrives and the columns are not totalled, the receiving station may then insert the totals, but must advise the forwarding station and quote the figures.

DELIVERY NOTES.—No delivery note should be made out from an invoice unless the invoice bears the initials of the clerk who is responsible to check the charges. At some stations the goods are loaded into carts direct from the waggons by the aid of the invoices, and the delivery sheets are then entered up from the invoice entries, and no delivery notes are in use, and no receipt is given to the consignees for the carriage "to pay," as the signature in the delivery book or on the delivery sheet is held as sufficient evidence of payment. We do not approve of this plan, although it may save some little labour; but the labour of a few youths to make out dockets is not costly, while at the same time they are in training to become experienced clerks. The absence of a receipt might raise a serious question against the company if they were suing a consignee for carriage, as he might reasonably say he could not produce a receipt although he had paid the money, *as it was not customary with the company to give receipts*. With a dishonest carter it might be difficult to prove him a thief, as he would give no receipt for the money he received. Any erasures or alterations of charges on notes should be closely looked into, because dishonest carters have been known to alter charges on the notes and make the amounts larger than on the sheets and pocket the difference, the consignees omitting to observe the imposition.

We prefer to issue delivery notes for every consignment on the inward invoices of goods that are to be delivered, we prefer to send the delivery notes by the carters, and let the carters give to the consignees written receipts for the amounts on the delivery notes, and if the goods are "paid," then leave the "paid" delivery note. The leaving of the "paid" note will afford a proof in cases of dispute, that no carriage had been collected by the carter. The delivery notes for goods "till called for," or that are customarily carted by the consignees, should be kept in the delivery office arranged in A B C pigeon holes, and placed under the control of only *one* inquiry clerk to give out.

Clerks after having made out the delivery and advice notes from invoices, should then get an assistant clerk to call off and compare the "to pay" amounts so as to prevent and correct any omission or error—both clerks should afterwards initial the invoice. If amounts short collected from consignees arise from errors of the note-clerks, charge these clerks with such amounts as may prove to be irrecoverable—this by degrees will lead them to make the check very perfect in self-protection.

"TILL CALLED FOR" GOODS AND "ORDER" GOODS.—Difficulties often arise when persons apply at a station for delivery of either "till called for" goods, "order" goods, or "station to station" goods. When such applicants cannot produce either the advice note of the receiving station, or the receipt note from the forwarding station, there is danger to be apprehended. The carrier is legally liable to deliver the goods to but one person, and that person must be the right consignee, or what is the same thing, the consignee's authorised agent. If the carrier delivers to any other person he is responsible to the right consignee for the value of the goods. If the applicant is not the

consignee in person, but simply a messenger, he may possibly be a thief, and therefore delivery of the goods should be refused, assuming that he is unknown and cannot produce either the advice note or the receipt. If the messenger produces a letter or order purporting to be written by the consignee, this should be looked upon with suspicion, because any person can write an order and append to it any signature he thinks fit. Should the applicant profess to be the consignee in person, if he be a stranger, his identification then becomes necessary. If he can produce a bank cheque book with his name in it, or several letters that have passed through the post addressed to him, such evidence is generally considered sufficient. If he can produce a responsible person known to the agent who will identify him, it is often accepted as sufficient evidence of identification; but if he can do none of these things delivery of the goods should be refused. With goods consigned to, say, Jones' "order," the practice should be to require the production of the receipt from the forwarding station. There is this danger with accepting written orders (1), the written order may not be written by the real consignee or owner of the goods; (2), we have known cases where sender and consignee were the same person, say Jones. Well Jones sends agricultural produce or other goods to the market town to his "order." Jones takes the train to the market town and applies to a commission agent who advances him perhaps half the value of the goods upon receiving the company's receipt issued at the forwarding station. Jones then goes round the town, sells the goods to say, Robinson, and gives Robinson a written order upon the carrier to get the goods. Thus the carrier will have two claimants for the goods, each producing an order that would warrant delivery being made. The first of the two men who apply for the goods probably receives them, and the other may run his chance of bringing an action against the company. Thus the company are involved in a dispute, and the case may be reviewed by a judge as to whether the company honoured the right order. We entertain the opinion that no goods "to order" should be accepted for carriage without a receipt on the company's printed form being issued, and then the goods should only be given up on the production of that receipt. When the person to whose "order" the goods are consigned lives in another town, an advice note should be sent him per post. No goods should be accepted for conveyance "to order," without the consignee's postal address is obtained and inserted on the invoice. Goods "to order," although carried at a delivered rate, should not be delivered even if the consignee's address is known, because the very fact of the goods being "to order" indicates that the consignee intends to transfer the goods at the station to a second consignee, and does not therefore want them at his own premises.

It is a good plan when making delivery of "till called for" or "order" goods, to insert in the delivery book the *full address* of the person to whom the goods are actually delivered, demanding the information from him at the time of delivery. If this is not done and any dispute afterwards arises, the person who has obtained possession of the goods perhaps cannot be traced.

Where there are many cases of goods "to order" at a station, it is a good plan to keep a small skeleton guard book, and use it entirely for pasting in all such orders, so that they may be quickly turned up subsequently in cases of dispute.

We are of opinion that when goods are addressed or consigned "till called for," they should not be received without the sender gives *some permanent address* of either himself or the intended consignee. The address need not necessarily be in the town to which the goods are going. Even when the sender is to receive the goods and is the actual consignee and is even an itinerant hawker, he must have some permanent home or resting place, or father, mother, sister or brother. The carrier should not allow himself to be placed in the position that he is the holder or warehouseman of the goods, and has no possible means of tracing the owner, for thus the goods may remain on hand unclaimed for weeks, months, or a year at the sweet will of the owner.

Senders sometimes forward a waggon load of goods or a two ton lot consigned to their "order," such goods being carried at the "station to station" rate. On arrival of the goods at the destination station it is found the sender has forwarded an order there to split up the consignment among four, five, or more consignees. This to our mind is practically converting the "station to station" rate into a class rate, and throwing upon the carrier, in making the separate deliveries, as much labour as would arise had the lot been carried at the class rate for the several different consignees. Regulation nine in the English classification provides for these separate deliveries being made, as it reads as follows:—

"Each consignment, whether from one consignor to two or more consignees at the same station, or from two or more consignors at the same station to one consignee, must be separately charged on invoices with the following exceptions:—

(b) "When several consignments of station to station traffic (not mineral class) of less than *two tons* weight each, weigh collectively *two tons* or upwards and are forwarded in the same waggon from one station to another station by one consignor, or to one consignee who pays the carriage, they are not to be charged more than the station to station rate at actual or computed weight."

TRANSFER OF THE OWNERSHIP OF GOODS FROM ONE CONSIGNEE TO ANOTHER CONSIGNEE.—Before accepting transfer orders for goods when there are charges due upon them for demurrage, storage, or carriage, it is better to have a clear understanding as to which consignee will pay such charges, so as to avoid subsequent disputes.

Orders by telegraph to transfer goods should be received with caution, and unless the trader telegraphing is a well known person, it may be dangerous to act upon such orders. The sending station may, however, be telegraphed to see sender, and ascertain if the order is a *bona fide* one. It may be necessary to put a stamp upon the telegram, if accepted and acted upon.

Certain sections of the Stamp Act of 1870 require, that when goods are transferred from one consignee to another, the order transferring

the goods shall bear a penny stamp, and the cost of the stamp shall be borne *by the consignee to whom the order is given*; the penalty for neglect is twenty pounds. This transference from one consignee to another chiefly arises with goods consigned "to order" or "till called for."

This Act is very difficult of application to the business of a carrier, and even the Inland Revenue authorities themselves seem unable to define its application in some particular cases. The Act was never intended to apply to a carrier's business, in respect to the actual *carriage* and delivery of the goods, but only when the carrier becomes a warehouseman, by reason of the termination of the contract of carriage, and then the wording of the Act encompasses the carrier as a warehouseman but not as a carrier. In section 87 it will be seen that the crucial point is whether the warehouse or wharf is a free warehouse or wharf or not. It is not a question of whether rent or hire is charged on the particular consignment in question, but whether rent or hire is charged *at any time* upon any goods placed in *such warehouse or on such wharf*. The section applies to wharves, but in the Act there is no definition of what is to be understood as a wharf, and, therefore, we may take the dictionary definition, which is "a bank of timber or stone on the shore of a harbour or river for unloading vessels," hence, except in the case of docks or canals owned by railway companies, the restriction as to a wharf does not seem to apply to any parts of railway companies' stations. *Great care is necessary to cancel the stamp put on the order.*

WHERE A STAMP IS "NOT" NECESSARY.—When goods are in value under forty shillings.

When goods are not put into any warehouse or on any wharf (not being unloaded from the waggon).

When goods are transferred to another station without being unloaded.

WHERE A STAMP IS NECESSARY.—When goods have remained, even for the shortest time, in a warehouse or on a wharf, it being customary to charge storage or wharfage at times upon any goods so lying in such warehouse or on such wharf.

When a consignment of goods is split up and transferred to several consignees, then each transfer order or endorsement to each consignee will require a penny stamp.

When a consignment is transferred by a second consignee to a third, and so on to a fourth consignee, each transfer will require a penny stamp.

33 and 34 Vic. cap. 97 (1870).

Section 87.—"The term 'delivery order' means any document or writing, entitling, or intended to entitle, any person therein named, or his assignees, or the holder thereof, to the delivery of any goods, wares, or merchandise of the value of forty shillings or upwards, lying in any dock or port, or in any warehouse in which goods are stored or deposited on rent or hire, or upon any wharf, such document or writing being signed by or on behalf of the owner of such goods, wares, or merchandise, upon the sale or transfer of the property therein.

Section 88.—“The term ‘warrant for goods’ means any document or writing, being evidence of the title of any person therein named, or his assignees, or the holder thereof, to the property in any goods, wares, or merchandise, lying in any warehouse or dock, or upon any wharf, and signed or certified by or on behalf of the person having the custody of such goods, wares, or merchandise.

Section 89.—“The duty upon a delivery order or warrant for goods may be denoted by an adhesive stamp, which is to be cancelled by the person by whom the instrument is made, executed or issued.

Section 90.—“The duty upon a delivery order is, in the absence of any special stipulation, to be paid by the person to whom the order is given; and any person from whom a delivery order chargeable with duty is required may refuse to give it, unless or until the amount of duty is paid him.

Section 91.—“Every document or writing in the nature of a delivery order is to be deemed to have been given upon a sale of, or transfer of, the property in goods, wares, or merchandise of the value of forty shillings or upwards, unless the contrary is expressly stated therein; and every person who—

1. (a) “Untruly states or knowingly or willingly allows it to be untruly stated, in any such document or writing, either that the transaction to which it relates is not a sale or transfer of property, or that the goods, wares, or merchandise to which it relates are not of the value of forty shillings;
 - (b) “Makes, signs, or issues any delivery order chargeable with duty, but not being duly stamped;
 - (c) “Knowingly or wilfully, either himself or by his servant, or any other person procures or requires, or authorises the delivery of, or delivers, any goods, wares, or merchandise mentioned in any delivery order which is not duly stamped, or which contains to his knowledge any false statement with reference either to the nature of the transaction or the value of the goods, wares, or merchandise shall forfeit the sum of twenty pounds.
2. “But no delivery order is, by reason of the same being unstamped, to be deemed invalid in the hands of the person having the custody of, or delivering out the goods, wares, or merchandise therein mentioned, unless such person is proved to have been party or privy to some fraud on the revenue in relation thereto.

Section 92.—“Every person who makes, executes, or issues or receives, or takes by way of security or indemnity, any warrant for goods not being duly stamped, shall forfeit the sum of twenty pounds.”

Duty stamp to be one penny.

ADVICE NOTES.—After the invoice charges have been checked the advice notes should be made of all “station to station” (not carted) goods and other goods which consignees are known to cart themselves. Despatch quickly a messenger with these advices and let him get a signature for them with time of delivery marked, either in an advice

note delivery book or sheet, suitably printed for the purpose. The time of the arrival of the waggon and the time of the delivery of the advice note will always show what promptness has been used. The proof of the delivery of an advice note is often very important, in cases of claims for delay or demurrage; hence the necessity of getting a signature and noting the time. When on account of the distance, advices have to be posted, let the person who posts them enter the addresses into a memorandum book, and *as he puts the letters into the post office box* check them off from the book and initial the latter. Without this precaution it is afterwards difficult to legally prove that a particular advice was posted, although it may easily be proved to have been made out. If the company can prove in this way that a particular advice was actually posted it would be accepted in a court as good evidence. Advice note-delivery sheets or books should be closely scrutinized every evening as to the promptness with which the messengers have done their work, the genuineness of the signatures, and generally the amount of work done. We have frequently met with cases of forged signatures by boy messengers, and where hours have been wasted by them in playing marbles or looking into shop windows, hence the messenger's time in, and time out, from the station requires to be closely scrutinized.

When an advice note has been sent by post and is returned through the dead letter office, an examination should be made of the address card on the goods and the invoice, for fear the advice note may have been wrongly addressed for the consignee. If a better address can be traced, a new advice note should be at once sent; if not, the sending station should be written for better address. The returned advice note and envelope should be carefully retained, so that if any dispute should arise the agent can afterwards prove the advice note was duly sent and that the company performed their duty.

DELIVERY SHEETS.—The use of delivery sheets has now pretty well superseded the old fashioned delivery books. The increase in the business and the consequent increase of clerks has rendered necessary a subdivision of documents relating to each day's delivery work. The multiplication of delivery books created confusion at large stations, and thus sheets have been very generally adopted. They are for most stations a great improvement, for, if one sheet happens to be lost by a carter, it is a smaller loss than a delivery book, which may contain hundreds of signatures for goods ranging over several weeks.

Whether particulars of the goods are written on to the delivery sheets from the invoice entries or from the delivery dockets, it should be in clear and distinct writing, and *the number and name of the street given*, otherwise it may lead to great detention of the carters in seeking the consignee's premises up and down a street.

The clerk who makes out the delivery sheets should, when necessary, also add the extra cartage beyond the limits, or if inserted on the notes by some other person, he should check the calculation to see that neither more nor less than the proper charge has been made. Care should be taken to insert on the delivery sheet in the printed space provided for the purpose the time the carter leaves with his load.

A progressive number book must be kept for the sheets by which the run of the numbers can be kept as each sheet is issued, and a record must be kept in the book of the name and number of the carter who gets each sheet. This is necessary in case of the loss of a delivery sheet, which loss might otherwise be suppressed by the carter in fault. The entries on the invoices should be referenced off to the delivery sheets to prove the disposal of the goods, and to show that the invoice has been "cleared" either by the delivery of the goods to consignees or by the transference of all the remaining odd entries into the warehouse or to other books where the disposal of the goods will be completed.

A delivery sheet clerk making the entries on the delivery sheets from the delivery notes, before parting with the documents to the carter should make a comparison or check the amounts "to pay" on the notes with those on the sheets so as to make quite sure that each amount on the sheets agrees with each amount on the notes. Unless this is done errors will creep in, and some consignees are ever ready to take advantage of an error to pay the lesser amount whether it may be on the sheet or on the note. The carters should be made aware that the sheets are copied from the delivery notes, when such is the plan, and then in cases of difference the carter will know that he must collect the amount on the delivery note and not that on the sheet.

When losses arise the delivery sheet clerk must be made amenable if he does not copy the "to pay" amount correctly from the note on to the sheet, while the delivery note clerk must, in like manner, be held responsible if he copies the wrong "to pay" amount from the invoice on to the delivery note. Undergot and overgot money discrepancies principally arise from these errors as follows:—

- (1.) A "paid" amount is copied on the delivery note as "to pay," and thus an amount of carriage is wrongly collected, which has already been paid by the sender.
- (2.) An amount that is "to pay" is overlooked on the invoice and the delivery note is made "paid," consequently no carriage is collected upon the goods on delivery to consignee.
- (3.) A "to pay" amount is incorrectly copied either on to the delivery note or sheet and either too much or too little money is collected.

When carting agents are employed, and from erroneous entries being made by the company's clerks on the delivery sheets, incorrect amounts are collected by the carters, the carting agent cannot fairly be debited with such amounts. If, however, for the convenience of account keeping, the carting agent is so debited, he must subsequently be relieved of the debit. Items of this kind, as between the company and the carting agent, are usually termed "disputed charges," and cause considerable trouble and labour in the working of the accounts.

In taking signatures on delivery sheets, pencil signatures should on no account be accepted. Where there are several entries on one sheet, for one consignee, if they are braced together and only one signature given for the lot, the number of packages should be written below the signature.

Any erasures or alterations of charges on delivery sheets should be closely investigated to prevent fraud.

Delivery sheets should on *no account be dated on a different date* than that upon which the goods are sent out, because such invalidates the signature as to the date of delivery. Any entries remaining on a delivery sheet at night when the goods are undelivered, the entries should be transferred to new sheets dated for the next day. This also refers especially to delivery sheets for empty packages where a sheet has been held back, because carts could not be spared to take out the empty packages on the day upon which the sheet was made.

An experienced clerk in the delivery office should be made responsible for handing over daily the completed invoices to the accounts office. Before doing so he should examine each invoice and see (1), that each entry shows a reference in the margin to indicate that the entry and goods have been duly disposed of; (2), that the rates and charges have been checked, and that each invoice has been initialed by the clerk responsible to make such check; (3), that each package has been checked by the unloading checker, and that his initials are also on the invoice in proof thereof. Any omissions should be made complete and the person in fault reprimanded.

Ordnance maps may be procured cheaply, on the scale of an inch to the mile, and they are frequently very useful to ascertain the position and distances of villages adjacent to a railway station.

If goods have been delivered to a consignee and a signature obtained, an agent should not re-accept possession of the goods without a proper written consignment note to forward.

When carting agents deliver the goods using the company's delivery sheets, require the clerks entering up the sheets, or some other suitable persons to make a weekly or monthly report that they have made a complete examination of the sheets and find in all cases that signatures have been obtained for the goods or otherwise as the case may be.

CARTAGE ALLOWANCES.—Where goods are charged at "carted" rates and consignees take their goods from or bring them to the station and demand cartage on same, the usual allowance must be paid. The allowance is generally one shilling and sixpence per ton, and is made by the issue of a docket similar to a "paid on" voucher. The voucher is issued in the delivery office or invoice office according as the traffic is inwards or outwards, and the cashier pays the cash on demand upon the trader signing the voucher for same. In some cases consignees send in a list with the delivery notes once a week or month, and obtain the allowance in a lump sum. In any case a remark should be made on the delivery notes and on the inwards or outwards invoices against each entry to show the allowance refunded, or, if a second application is made in relation to the same consignment, the allowance might in error be paid a second time. A list is made of the cartage allowances paid during the month, and the total amount is taken credit for by special entry on the balance sheet, and the signed vouchers are sent with the sheet to the audit office. The accounts clerk should examine each

voucher carefully before sending them forward, to see that they bear a signature for the money paid and that the voucher appears to be a *bona fide* one. He should also check the rate per ton allowed and the calculation of same at the allowed rate.

Boatages are similar to cartage allowances. Throughout the South Staffordshire iron districts and some other districts, in many cases the rates are "station to station" and do not include delivery and collection at all the iron works. The canal companies, however, who compete for the traffic, deliver at some of the iron works by boat, and the railway companies having to compete for the traffic likewise employ boats for collection and delivery instead of using carts.

COLLECTION OF CARRIAGE.—Give written advice to the delivery clerk or foreman who delivers the goods, that he will be held personally responsible to pay all amounts of carriage, when unauthorised he delivers goods without obtaining the charges due, and carry this out strictly or an agent will never know the extent to which his outstandings may grow. For all goods delivered by the company to the carting agents debit their account with the carriage, unless the carters pay to the company's agent their daily collections. In the latter case an agent should be sure that *every package of goods is signed for*, also that every amount upon the sheet is collected and handed over to him each night. *No excuse whatever should be accepted.* In the absence of instructions from the district officer on the matter, give the carters instructions to bring back the goods, if the consignee refuses to pay or sign the delivery book or sheet. It is important, however, in such cases, that the carter should be able to prove in a witness box, if necessary, that what took place between him and the consignee amounted to a *legal tender*. Consignee must not be able to show that he could not get possession of the goods, even if he had paid the carriage. The law holds that the payment of the carriage and the delivery of the goods should be contemporaneous acts—as it were to give the goods from one hand, and receive the charges in the other.

Consignee may say that sender should have paid or did pay the carriage, but unless the goods are addressed "paid," there is no proof but the consignee's word (see Clearing House rule 165, edition 1883). The carter may promise that the sender shall be applied to, and if he pays it then the money shall be refunded to him (consignee). A carter, contrary to orders, who persists in delivering goods without the money due or without obtaining a receipt should be dismissed. In detaining goods for the carriage, it is questionable whether the law allows the detention of a portion of a consignment for the carriage on the whole consignment, therefore if consignees are allowed to break bulk without a written understanding, an agent may only be able subsequently to detain and demand carriage on the quantity actually remaining undelivered. When consignees' carters apply for goods without the charges due, if they are allowed to take part, an agent should have an understanding and get the carters clearly to agree to the stoppage of the remainder, *for the carriage on the lot*. With litigious and awkward traders, it is better not to let them touch the goods until

they pay the carriage. If goods are delivered without a signature being obtained, send the person in fault to the consignee to obtain the signature.

Carters should be forbidden to take cheques or any kind of paper money except perhaps bank notes. If they accept bad money they must be primarily held responsible, indulgence, however, being extended in special cases. Cashiers should not take bills of exchange or promissory notes or cheques, especially for large sums, from unknown traders. Cheques from banks a long way off should be viewed with suspicion, and so likewise should the cashing of cheques for large amounts tendered to pay a comparatively small amount of carriage.

The placing of the cash bag in the despatch box on the train (when the cash is not paid direct into a bank) is of the very greatest importance. If the agent makes up the cash himself for remittances to headquarters, none other than he should put the cash bag into the train despatch box. If there be a responsible cashier at the station then he should do it. The great danger is in the duty being laid first upon one person and then another. The person who does it, should be a person whose comings and goings will not interfere with his performing the duty regularly, punctually, and without variation. The loss of a cash bag with perhaps fifty pounds, one hundred pounds, two hundred pounds or more in it, is a very serious thing, because it usually means robbery, and the thief will do all he can that suspicion may fall upon other men than himself. There should be no openings for a thief to commit a robbery and evade suspicion.

The practice between railway companies parties to through booking is for all refused perishable traffic, particularly fish, fruit and the like to be sold at the arrival station, by the agent to the best advantage, and on no account for it to be returned to the forwarding station.

When goods are charged "to pay" and addressed "paid," the practice between the railway companies parties to through booking is, that the receiving station may recharge the carriage to the forwarding station, provided the address card marked "paid" is attached to the recharge invoice.

Delivery clerks should closely scrutinise "paid ons" charged upon goods for those consignees who have ledger accounts, because the practice between the railway companies parties to through bookings is, that heavy "paid ons" must be secured upon delivery of the goods and not posted to a ledger account. If consignees should become bankrupt and heavy "paid ons" form part of the unpaid ledger balance, the forwarding company will have a reasonable ground to refuse to participate in the loss of such amounts.

GOODS TO "WEIGH, CHARGE AND ADVISE," AND GOODS "PARTICULARS TO FOLLOW," AND GOODS "UNENTERED."—A "goods unentered book" is required in the delivery office at most medium sized stations, for ordinary cases of goods unentered. At large stations a second book is required for goods arriving "weigh, charge and advise," and "particulars to follow," otherwise there is great danger of

such entries being overlooked and the goods carried free of charge. There are no class of entries so vexatious as these "weigh, charge and advise," and "particulars to follow," because the circumstances connected with them are usually so crotchety. In exceptional cases they are unavoidable, but with greater care at forwarding stations they might often be avoided. Any one station continually making such entries on invoices should be taken to task for doing so—unnecessary hurry, thoughtlessness and carelessness frequently are the cause of such entries being made. Except where the goods are of a description which the forwarding station cannot weigh for want of convenience or appliances, such entries should be preventable. Unceasing raids should be made upon station agents to curtail such entries.

Either the chief delivery clerk or some responsible clerk should keep the book and work up the correspondence incidental to obtaining the invoice with weight and charges. Special attention should be given to each entry and care taken that actual delivery of the goods (on payment of a deposit) is not made before their weight has been obtained. Having quickly obtained the weight no delay should occur in sending the information to the forwarding station through the correspondence. It should be a standing rule with the receiving foremen or checkers that the weight of all goods received, either "particulars to follow," or "weigh, charge and advise," should be taken immediately the goods are removed from the waggon. Where the goods consist of a full waggon load that require to be weighed on the waggon weigh-bridge, the yard staff, shunters, or other persons concerned in placing the waggon in position should have a written order accordingly.

With either class of entries where invoices containing weight and charges are not to hand and delivery has to be made at once, consignees' signatures can be taken in the "unentered book" which is usually provided with a signature column. In such cases a collection of money should be made by payment of an estimated charge as a deposit, unless the goods are delivered to a regular customer or on a written promise to pay subsequently on demand. A signature for the goods must be obtained irrespective of the question of charges. When invoices are received for the goods, the delivery references must be crossed so that upon referring to the invoice it may be easy to trace the signature for the goods in the "unentered book."

Unentered goods of an every-day class are simply cases where the invoices are delayed or lost, and such entries are soon rectified by the arrival of the delayed invoices or the substitution of copies. The danger with the "weigh, charge and advise" and "particulars to follow" entries is, that unless brought forward once a week they are lost sight of from being mixed among a large number of entries of the type of ordinary unentered goods. These latter are often very numerous, but are rapidly cleared, and then leave the other kind of entries behind.

When the correspondent clerk has, from the goods unentered book, written out a report to go to the sending station, he should initial the entry in the goods unentered book and write in the date, to show the date that the sending station was actually advised. He should also

make out a delivery note, to be used either in the delivery of the goods or to be placed in the "pigeon holes" in case of inquiry for the goods. As the delivery notes are made out from the invoices, unentered goods would be unrepresented by a delivery docket, unless it is made out from the unentered book.

Inward local goods received without invoice should, when practicable, be at once reported by telegraph to the sending station as uninvoiced. When waggons arrive from foreign stations without invoices a shilling telegram to the sending station may save a claim, but, in addition, an advice should be also sent by next train, and likewise by the night's post. In either of these cases when the consignee chances to be the sender, and also a stranger, before making delivery of the goods the agent should require a cash deposit, sufficient to cover the carriage, unless a company's receipt can be produced showing the carriage was prepaid at the forwarding station, or unless the goods are addressed "paid."

Where goods are transferred *in railway waggons* to a quay side to shipping companies, or to another railway company at an adjoining station, it is the better plan to appoint a checker to go with the waggons, taking the invoices or notes with him. He can then check the goods out of the waggons with the other carrier's checker and take a signature for them at the time in a book or on a sheet. Where, however, the point of delivery is at the warehouse of the delivering company, then the shipping company's man should attend and check and sign for the goods before the waggon is moved off the ground of the parent company. The same also applies to goods off docks and quays received into railway waggons from shipping companies, unless when the shipping companies are permitted to make the through invoices and load through direct from the quay.

It is important with all foreign traffic that the weight should be entered in the correct column, either "carted" or "not carted." If weight that should be entered in the "carted" column is put into the "not carted" column, then the two companies lose upon the terminals, receiving only one shilling and sixpence per ton each instead of four shillings per ton, which may be serious where the cartage has been actually performed. The difference between the two amounts, viz., two shillings and sixpence, would, in such a case be miled, but, where one company had a short mileage, the division on the two shillings and sixpence would be only fractional. The clerk checking the rates and calculations on inwards invoices should watch keenly for errors of this kind, whether to the benefit of his own company or to the forwarding company and adjust same by weight correction sheets.

Where the clerk checking the rates and calculations of invoices finds a rate charged of which he has no record in his rate book, the goods manager should be advised. Without this check, foreign companies in their own competitive interest might vary the rates to a station or district to the injury of the receiving company.

EMPTY RETURNED PACKAGES.—Very considerable trouble and subsequent correspondence arises in respect to the carriage of empty

packages. Senders very generally begrudge the money to prepay the carriage of empty packages, and exercise continual pressure to get empty packages charged "to pay." Traders at times occasion considerable complications by returning empty packages to one seller of goods, which really belong to another seller of goods, the object being to "run in" empty packages irrespective of their real ownership, so as to get credit for amounts charged in the seller's invoice to the buyer. Thus egg boxes and other boxes are returned without lids, casks are deficient of hoops, hampers are without covers, wrapping that is worthless, mineral water bottles bearing other makers' brands, ale and porter bottles with other merchants' labels, and even ale and porter casks with one brewer's brand returned to another brewer.

On no account except by special arrangement with the officer of the district should cash be paid out as "paid on" upon empty packages. At shipping ports difficulties often arise from the sender paying the carriage to the port, and then the company who carry forward inland are expected to take on the empty packages and charge the carriage "to pay." The best remedy for this is to require the original forwarding station to invoice through "paid" at the Clearing House mileage scale for empty packages, which can be done even although there may be no ordinary through rates between the two stations, if companies are parties to Clearing House. Few companies object to this plan, though we have known objections raised in individual cases.

Checkers and porters dealing with empty packages occasionally tear off the address labels, so as to substitute one package for another, both perhaps being of a like nature. This practice breeds angry and extensive correspondence, and should not be allowed or encouraged, and men detected at it should be punished. Where packages are found on hand unaddressed and unclaimed it is expedient sometimes to utilise them to replace missing packages, for which claims may have been made.

Checking inward empty packages is an exceedingly troublesome business when there are a large number. At comparatively small stations where the checkers checking the goods can also check the empty packages, and the separation of the two for delivery purposes is not necessary, the difficulty is reduced to a minimum. Where at larger stations a separate part of the station is set apart for empty packages, difficulties will arise. Empty packages necessarily arrive in the same waggon with goods, and the goods unloading checker either unloads the empty packages or leaves them in the waggon, and the waggon is afterwards shunted to the empty depôt. This works smoothly enough, but it too frequently happens that the empty packages are either too few or the waggons are too badly wanted for this to be done, and so a number of empty packages, out of several waggons, are clubbed and reloaded into one waggon and sent to the empty depôt. Now unless the waggon numbers and "stations from" are chalked upon the empty packages or some other plan devised, the empty checkers cannot match the invoice entries and the empty packages correctly together. A close scrutiny should be kept on invoices containing entries of empty packages to see that such entries have been properly cleared and initialed. The

difficulties are greatly lessened if there is plenty of space for handling the empty packages, and if not under cover, that the ground is paved and free from accumulations of mud. When empty packages are thrown out upon muddy roads or muddy spaces, the addresses become obliterated and the packages deteriorated. Each invoice for empty packages should be checked and cleared by one checker only, for if two or three men have a hand in checking one invoice it is likely the work will be badly done.

An agent should have a sharp man working among the inwards empty packages, to detect goods surreptitiously sent in packages declared to be empty. Sometimes goods are concealed in returned wrappers or empty sacks. Specially clever senders have been known to put a small parcel in a box and nail some wrappering over and round it, so that, if the box is shaken, there will be no rattling of anything loose inside. We once found a gold ring nailed to the side of an empty returned egg box in this manner.

With empty egg boxes passing between England and Ireland, there is a very vicious practice in vogue with the senders in England. Many of these senders are egg salesmen, receiving eggs from many dealers in Ireland. Either under the pressure by letter from their Irish customers, or to suit their own purposes, they return empty egg boxes belonging to and branded with one customer's name to another customer. Thus an Irish dealer with a small stock of boxes obtains other dealers' boxes, now and again, to carry odd consignments; and an Irish dealer with a fair number of boxes for his trade cannot get his own boxes for his own use. The Irish dealer's written complaint to the English salesman is answered by the reply, that he delivered the empty boxes to the railway company, which may be quite true, but they were consigned to a consignee other than the true owner. We have known empty egg boxes belonging to Cork dealers sent to dealers in the west of Ireland. The only remedy for this kind of thing is to decline accepting for conveyance empty boxes branded with one man's name when consigned to another man. It is a rule always applied to brewers' casks that are branded, and is equally applicable to empty egg boxes. If one dealer buys empty boxes from another dealer, he should alter the branded name on the boxes. If one dealer lends another dealer in the same town an empty egg box, he must stand by the consequences.

GOODS ON HAND BOOK.—If a warehouse book is kept on the platform in which consignees' signatures are obtained for goods delivered, it may not be necessary to keep a "goods on hand" book in the delivery office for "station to station" goods, "till called for" goods and "order" goods. When, as is the case pretty generally, at least in Ireland, the original invoices are sent to the audit offices with the abstracts each month, then a *full* copy of each invoice, as a record, has to be taken. The book used for this purpose becomes the "goods on hand" book, and opposite those entries where the goods have been carted out, the delivery sheet reference is inserted in the signature column. Where the "station to station" and grain traffic are not

sufficiently extensive to require a distinct signature book, such kinds of traffic naturally fall into the "goods on hand" book.

In making delivery of "goods on hand" to consignees at stations, there should be a perfect understanding between the delivery foreman in the shed and the clerks in the delivery office, otherwise goods may be removed either by the wrong person or without payment of the carriage. The delivery note is the authority upon which the foreman should act, but before he gives up possession of the goods he should see that the holder of the delivery note has paid the carriage if it be "to pay," and that the note bears the receipt of the clerk or cashier who is the authorised person to receive cash.

At many seaport towns where steamer competition is active, the steam packet companies have men going about the quays and railway stations as half canvassers and half touters. These men, if allowed, will scrape acquaintance with railway companies' foremen and others to get access to the premises, their object being to get information for their employers off the address cards of the goods, as to the names of senders who forward traffic by routes other than the route the canvasser is interested in. When such men are found in sheds or warehouses they should be summarily ejected, whether they may be acting in the interest of steam packet companies or of competitive railway companies.

Goods on hand, such as gunpowder, inflammable oils, oil rags or waste, or other dangerous goods that are liable to spontaneously originate fire, should on no account be placed in sheds or warehouses. They should be placed somewhere under cover in the yard, in a hut or place where, should a fire arise, no serious harm would be done to the principal station buildings.

To prevent goods being overlooked, or that may be lying "to order" or "till called for," it is advisable to take stock of all goods on hand, say on the first of the month, keeping a special book for the purpose. A return of this kind is also very useful when going over the amounts outstanding upon goods stored or supposed to be stored in the warehouse.

In addition to this stock-taking a weekly return of all goods on hand over seven or fourteen days is useful in relation to sundry or general goods that should be carted out within a few hours after arrival. Such a return catches up the refused goods and odd packages, if any have been overlooked.

In taking signatures from consignees' servants when they cannot write, it is of importance that the clerk taking the signature and making the cross (with the man's hand touching the top of the pen) should place his initials in the margin. This is necessary in the event of evidence being required in a law court to prove the delivery. Without the clerk's initials it is not known afterwards who took the man's signature, and a difficulty arises as to who can act as a witness to prove the signature and the delivery in the manner required by the law.

GRAIN BOOK.—The account keeping in respect to grain traffic is of the most puzzling nature, if a complete check is to be kept upon it.

Generally over the aggregate of stations the grain produces the largest consignments that have to be handled as a distinct class of traffic. Buyers and sellers of grain deal with single purchases of from one thousand to five thousand sacks, or at times even with a much larger number. The carrier, however, has nothing to say to the total of the purchases between buyer and seller, he has only to deal with the total of the consignment delivered each day to him for conveyance. The putting together of each day's consignments to agree with the total purchase in senders' books should be ignored by the carrier. Even when dealing with a day's deliveries which may amount to five hundred or one thousand sacks, the numbers are sufficiently large to admit of great confusion unless there be a good system of checking the separate deliveries. The difficulties with inwards grain traffic lie in having to make delivery in dribbles to separate carts, either over one day or several days. Each dribble as taken away from the station must be signed for before removal, otherwise at the finish of the lot it may be alleged that ten or twenty sacks are deficient, and of course, if the delivery cannot be proved, then the company have to pay for the sacks deficient.

These difficulties have to be met and overcome, and the only plan, when an extensive grain traffic has to be handled, is to open as it were a separate ledger account, in simple form, for each consignment, and take the carter's signature for each cart load as delivered.

For many years we have used the following book, and it has proved very successful. The size of the book is 13 by 8 inches, with eight carter's slip notes attached to *each* page, but if more are required, they can be detached from some of the leaves at the end of the book, or a larger sized book printed.

RAILWAY.
CARTERS GRAIN DOCKET.
No. 1 18

Bags _____ Lot of _____

 Bags Lot of

Invoice from

Paper _____ Lot of _____
Invoice _____ from _____
_____ Delivery Clerk _____

PAGES _____ **LOT OF** _____
INVOICE _____ **FROM** _____
Delivery Clerk _____
RAILWAY. _____
CARTERS GRAIN DOCKET.

Bays _____ Lot of _____
 Invoice _____ from _____
 _____ Delivery Clerk _____

 RAILWAY.
 CARTER'S GRAIN DOCKET.

 No. 2 _____ 18

Bags _____ Lot of _____
 Invoice _____ from _____
 _____ Delivery Clerk _____

 CARTERS GRAIN DOCKET.

 RAILWAY.

 No. 2 _____ 18
 Bags _____ Lot of _____

Bags _____ *Lot of* _____
Invoice _____ *from* _____
_____ *Delivery Clerk*
.....
CARTERS GRAIN DOCKET.
RAILWAY.
No. 2 _____ *18*
Bags _____ *Lot of* _____
Invoice _____ *from* _____

No. 2

CARTERS GRAIN DOCKET.

RAILWAY.

Bags _____ Lot of _____ 18

Invoice _____ from _____ Delivery Clerk _____

Invoice _____ from _____ Delivery Clerk _____

No. 3

Bags _____ Lot of _____

Invoice _____ from _____

_____ Delivery Clerk.

CARTER'S GRAIN DOCKET.

RAILWAY.

_____ 18

No. 2

Bags _____ Lot of _____

Invoice _____ from _____

_____ Delivery Clerk.

CARTER'S GRAIN DOCKET.

RAILWAY.

_____ 18

No. 1

Invoice _____ from _____
_____ Delivery Clerk.

CARTER'S GRAIN DOCKET.

RAILWAY.

_____ 18

No. 2

Invoice _____ from _____
_____ Delivery Clerk.

CARTER'S GRAIN DOCKET.

RAILWAY.

_____ 18

No. 3

Invoice _____ from _____
_____ Delivery Clerk.

CARTER'S GRAIN DOCKET.

RAILWAY.

_____ 18

Page _____ Lot of _____

Bags _____ Lot of _____
 Invoice _____ from _____ Delivery Clerk _____

CARTERS GRAIN DOCKET.
RAILWAY.
 No. 3
 Bags _____ Lot of _____ 18
 Invoice _____ from _____ Delivery Clerk _____

CARTERS GRAIN DOCKET.
RAILWAY.
 No. 2
 Bags _____ Lot of _____ 18
 Invoice _____ from _____ Delivery Clerk _____

Bags _____ Lot of _____
 Invoice _____ from _____
 _____ Delivery Clerk _____

 No. 2
 Bags _____ Lot of _____
 Invoice _____ from _____
 _____ Delivery Clerk _____

 No. 3
 Bags _____ Lot of _____
 Invoice _____ from _____
 _____ Delivery Clerk _____

 CARTER'S GRAIN DOCKET.
 RAILWAY.
 18

In the event of goods being addressed "paid," and charged "to pay," the receiving station agent is not warranted in withholding delivery of the goods for the carriage. If the consignee refuses to pay, then the goods must be delivered, leaving the carriage an open question. The practice between the railway companies parties to through booking is, that the receiving station may recharge the carriage to the forwarding station, provided the address card marked "carriage paid" is attached to the recharge invoice. The same practice applies to passenger parcels.

When invoices are received manifestly dated in error from a clerical error, the correct date should be inserted by the receiving station, and the forwarding station should be advised. The date of the arrival of the waggon named upon the invoice will give a clue to the proper date, as it will be easily known how long a time is ordinarily occupied by the waggon on the journey.

The labelling of books on the outside facilitates their being easily distinguished, and if the periods during which they have been in use are also marked on the labels, a particular book that may be wanted may be picked out quickly from amongst a great number.

CHECKING INVOICE CHARGES.—Before the making out of either the delivery or the advice notes the invoice charges must be checked. As quickly as possible after the pro-numbering is done the invoices should be passed to one particularly experienced clerk familiar with the rates and classification, whose principal business it should be to check invoice charges and extend the "porters" and "posted" items, and having done so, to place his initials on the invoice in proof thereof. All undercharges and overcharges should be distinctly shown, so that the note-clerk in making out the delivery and advice notes may adopt the amended charge, and not write on the note incorrect charges to be demanded from consignees. Nothing gives rise to such bitter complaints from the public as incorrect and excessive charges; while, if the incorrect charge is below the proper charge, it is then extremely difficult to collect, and somewhat humiliating to apply for the undercharge. It is therefore of the greatest importance to have a careful, reliable clerk or clerks, to check the charges; and it is false economy to begrudge good pay to the right class of man, as he may soon earn for the company far more than his salary, in the undercharges he detects and which he is the means of recovering.

In all cases where undercharges are discovered on "paid" amounts, the sending station is responsible to collect same. The receiving station may, however, ask consignee to pay it but not to unduly press him. In the event of the receiving station collecting the undercharge, the sending station must be advised to issue an undercharge invoice "to pay."

The practice between the railway companies parties to through booking is, that under no circumstances shall an invoice be altered at the receiving station in respect to the figures in the weight, rate, paid on, paid, or to pay columns; but if an invoice arrives and the columns are not totalled, the receiving station may then insert the totals, but must advise the forwarding station and quote the figures.

DELIVERY NOTES.—No delivery note should be made out from an invoice unless the invoice bears the initials of the clerk who is responsible to check the charges. At some stations the goods are loaded into carts direct from the waggons by the aid of the invoices, and the delivery sheets are then entered up from the invoice entries, and no delivery notes are in use, and no receipt is given to the consignees for the carriage "to pay," as the signature in the delivery book or on the delivery sheet is held as sufficient evidence of payment. We do not approve of this plan, although it may save some little labour; but the labour of a few youths to make out dockets is not costly, while at the same time they are in training to become experienced clerks. The absence of a receipt might raise a serious question against the company if they were suing a consignee for carriage, as he might reasonably say he could not produce a receipt although he had paid the money, *as it was not customary with the company to give receipts*. With a dishonest carter it might be difficult to prove him a thief, as he would give no receipt for the money he received. Any erasures or alterations of charges on notes should be closely looked into, because dishonest carters have been known to alter charges on the notes and make the amounts larger than on the sheets and pocket the difference, the consignees omitting to observe the imposition.

We prefer to issue delivery notes for every consignment on the inward invoices of goods that are to be delivered, we prefer to send the delivery notes by the carters, and let the carters give to the consignees written receipts for the amounts on the delivery notes, and if the goods are "paid," then leave the "paid" delivery note. The leaving of the "paid" note will afford a proof in cases of dispute, that no carriage had been collected by the carter. The delivery notes for goods "till called for," or that are customarily carted by the consignees, should be kept in the delivery office arranged in A B C pigeon holes, and placed under the control of only *one* inquiry clerk to give out.

Clerks after having made out the delivery and advice notes from invoices, should then get an assistant clerk to call off and compare the "to pay" amounts so as to prevent and correct any omission or error—both clerks should afterwards initial the invoice. If amounts short collected from consignees arise from errors of the note-clerks, charge these clerks with such amounts as may prove to be irrecoverable—this by degrees will lead them to make the check very perfect in self-protection.

"TILL CALLED FOR" GOODS AND "ORDER" GOODS.—Difficulties often arise when persons apply at a station for delivery of either "till called for" goods, "order" goods, or "station to station" goods. When such applicants cannot produce either the advice note of the receiving station, or the receipt note from the forwarding station, there is danger to be apprehended. The carrier is legally liable to deliver the goods to but one person, and that person must be the right consignee, or what is the same thing, the consignee's authorised agent. If the carrier delivers to any other person he is responsible to the right consignee for the value of the goods. If the applicant is not the

store goods free for their convenience. The effects of competition between railway companies is such, that a very large amount of free storage is given to traders whose traffic is of a heavy kind and forwarded in large quantities. That free storage should be given for some reasonable fixed period after the arrival of the goods is perfectly clear, but the question is, what period of time should that be. It must be borne in mind that the business of a company is that of a carrier, to carry, not that of a warehouseman, to store. Of course the office of a warehouseman may be assumed by a company if remunerative, but ought it to be assumed when unremunerative? Forty-eight hours after arrival has been held by a judge to be a reasonable time for a consignee to accept his goods, and permit the company to complete, by delivery, their contract of carriage. Where any particular kind of traffic has to be encouraged by free storage—as where senders forward large quantities of goods speculatively to find a market—then it may be to the interest of a company to grant free storage. But after the trade has become of a permanent nature, the question will arise whether it can be continued without the necessity of any storage, and if storage be necessary whether either the seller or the buyer cannot afford to pay something for such service. Persons who store household furniture at a station for months, for their own convenience, should be made to pay; but in such cases the better plan would be to refuse to allow the furniture to remain, and give weekly notices of double or treble storage, until delivery shall have been enforced. Where produce is sent for sale and the market price has suddenly fallen, and the produce has to be held over for the next market day, such untoward circumstance merits due consideration. On the other hand, where the owner is keeping the goods on the carrier's hands for several weeks to wait for an upward turn in the market price, we do not see why he should do this other than at his own expense. Where a trader makes the carrier's warehouse his place of sale for his goods, thereby saving cartage and the hire of a warehouse for his business, the carrier should get something from the trader out of such economising. Small consignments of goods that are refused by the consignee, and which there is reason to believe were forwarded by sender speculatively and without any order, should certainly be subject to storage. We have known very many cases where goods (wines, spirits, &c.) in such instances have been allowed to remain three months at a station, until the sender's traveller visited that town again and could find a customer to take them.

While these are our opinions it rests with the station agent to simply carry out the instructions he receives from his goods manager as to charging storage on goods left on hand.

Where storage is charged at a station, a proper storage book should be kept for the purpose in the delivery office. The delivery clerk, when giving out the delivery note, can see from the date of the arrival of the goods how long they have remained on hand subject to storage. He then inserts the storage charge on the note showing the number of days or weeks chargeable, and the rate of charge, and adds this to the carriage, if any. He then copies the entry into the storage book, and the trader takes the note to the cashier's office and pays the

amount. The amounts for storage entered in the storage book should be checked weekly with the amounts actually paid for storage in the cashier's book.

The clerks should be impressed with the importance of never allowing strangers access to the offices, nor to inspect books and documents, and also to be circumspect in allowing employees of other railways to obtain information that might be turned to the disadvantage of their own company in respect to claims on goods or otherwise.

ROPES.—The care of ropes and the account-keeping involved in respect to the "paid on" and "to pay" amounts is very troublesome. The work entailed at many stations may be insufficient to fully occupy one man's whole time, still the duty must be fixed upon some one person, either a checker or a porter, otherwise trouble will arise. What should be everybody's business is nobody's business. It is a good plan at medium sized stations to put a sharp porter to the work, one who would be likely to develop into a checker, and give him an extra shilling or so a week over an ordinary porter's pay. At some stations it may be found convenient to combine the duties of ropeman and delivery sackman. Where traders' returned sacks are numerous, the work requires a man to specially look after the sack delivery, otherwise confusion will arise. Traders' carters and men, if allowed, will slyly tear off the address cards from bundles of good sacks and claim these bundles, leaving the inferior bundles of sacks for the next applicant. Thus consignments are crossed, complaints and claims arise, and loss to the company follows as a consequence.

Fix one or two hours or such period of time each day as may be necessary for the ropeman to devote to the ropes, and during those hours when he can be best spared from his other duties. When the delivery notes are made out in the delivery office for the goods, notes should also be made out for the ropes, entered upon inward invoices, showing the waggon number and ferrule number of the rope. These notes should be made out to "ropeman," and his signature taken for them in like manner as for an advice note delivered to the public. The ropeman knowing the waggon number in or upon which the rope should arrive, can make search for it. If the rope is securing a load liable to be shunted about the yard, it may not be safe to take off the rope at once, but in such a case the ropeman should keep a sharp look out for the rope at the time the waggon is unloaded. If a separate report book is not necessary, the ropeman should be held responsible to make reports of all discrepancies in the delivery office rough report book, so that letters may be written from this report book to the stations concerned.

The most important matter with ropes is that the ropeman should have a little lock-up store in which to keep the ropes. A little place can be partitioned off on the goods platform or built in the yard. Unless the ropeman is afforded a lock-up place for the safe custody of the ropes, he cannot reasonably be held responsible for them. If the ropes are permitted to be generally accessible, one person or another will take a rope away without any entry being made and nothing but

muddle will ensue. It is better to have the lock-up upon one of the goods platforms, because these little snuggeries erected in the yard are liable to damp and to become a rendezvous for idlers and gossip.

Before any rope is given out from the lock-up to be placed upon a waggon, the ropeman should take the loader's receipt for it and the ferrule number, in a rough memorandum book. The ropeman should also make out a consignment note showing the ferrule number, the number of the waggon carrying the goods, consignee's name, and the station to. This note the ropeman should lodge in the invoice office and take a signature for same in like manner as he signs for delivery notes of ropes coming to him from the inwards office.

The books for ropes are usually provided in a kind of debit and credit form, one side of the page showing ropes forwarded and the opposite side ropes received. A line on the received page, and opposite to the entry on the forwarded page, is left vacant to be filled up when the rope is returned. Thus the in and out entries are opposite for each rope, and any vacant line on the received page shows at a glance that the rope has not been sent back. If a rope is not returned to the forwarding station in five or six days the ropeman should, by a report in the report book, cause the station concerned to be written to return the rope.

Ropes are usually supplied to stations by the goods manager, and ten shillings per rope is charged to the station as "paid on" and "to pay." This ten shillings remains as a credit with the goods manager during the life of the rope, and when the rope becomes unfit for further use it can be returned to the depôt, and the original first "paid on" credit is available to clear the last debit.

It is advisable to take stock of the ropes on hand once a month, to see if the number on hand corresponds with the number of ten shillings items standing as debits for ropes in the outstanding book. This test will soon show whether or not the ropeman is doing his work carefully.

Each rope, when new, has a ferrule fixed to it with the owning company's initials, and a number engraved thereon. The ferrule is usually fixed in the centre of the rope. If the ferrule has been removed or the number become illegible, the rope and the ten shillings "paid on" should be returned to the stores depôt and a new rope demanded in lieu. Mischievous persons will sometimes cut ropes in half or cut lengths off, hence the ropeman should closely examine ropes on arrival and report such damages. Ropes should be made of hemp, and average twenty-five yards in length. Their weight varies in accordance with their thickness. Many ropes weigh from eighteen to twenty lbs.; so that by weighing a rope it may be known whether any considerable portion has been cut off it.

In the case of foreign ropes, unless the rope is returned and invoiced to the parent company *within fourteen days* of the date of the forwarding invoice, the right of returning the rope and the ten shillings debit has been forfeited by lapse of time. This renders it necessary in quote, on the returning invoice, reference to the original debiting invoice; thus undue detention of a foreign rope almost amounts to

a sale of it to the company detaining it. The respective goods managers, however, may specially arrange for an exchange of ropes, the owning company accepting the ropes back at five shillings each, which amounts to a fine of five shillings per rope against the offending company or the station that detained the rope.

When ropes are returned, they should be made up neatly in a coil, and an address label tied on whether returned in a through waggon or as tranship goods. Ropes should never be returned in a waggon without goods in it, nor in a mineral waggon.

The non-receipt of a rope is not a ground to refuse taking the invoice to account. The rope must be reported short and traced the same as missing goods. The substitution of one rope for another is not allowed, the identical rope sent out must be the one returned or the debit cannot be transferred.

Station agents having sidings and collieries under their charge adjacent to their stations, need to look specially after ropes, chains, &c. Timber (pitwood), hay and straw, is a regular kind of traffic to many collieries, and it is upon such traffic that ropes are constantly in use. Some plan of taking the ropes off the waggons at the time the waggons are put into the siding should be devised. If this cannot be done, it must be made the business of the ropeman to visit the sidings periodically in search of ropes.

Ropes belonging to foreign companies received uninvoiced or found in waggons, should be passed through the rope books and invoiced free to a leading station on the line of the owning company.

After a period of six months the right to clear debits on ropes by recharge lapses by Clearing House rule 293 of 1882, section 17.

The remarks in the foregoing also, in a great measure, apply to chains and packing, sheet trestles and loose sheet supportera.

CATTLE TRAFFIC.

OUTWARDS—LOADING.

Appliances—record of fairs—cattle dealers and drovers' manners—cattle, delay and loss of condition—through booking—plenty of waggons—disinfecting and the Act—cattle law cases—loading and condition of waggon—use of straw—sizes of waggons—acceptance of contract, only after loading—horses under ten pounds value—loading note—senders loading—overloading—half waggon loads being clubbed together—fastening doors—labels—route—tying up covers of box waggons—waggons containing remains of salt—drovers' passes—plainly written cattle tickets—unloading cattle quickly—undercharges—proof of delivery—sending to livery—cattle at shipping ports—changing cattle at intermediate stations—cattle found on line.

In dealing with cattle traffic, the great essential is station accommodation and empty waggons. If quick despatch can be given minor difficulties soon disappear. Cattle traffic unfortunately is very fluctuating, the flow being unequal, uncertain, and arising unexpectedly with a rush. To be forewarned is to be forearmed, and therefore the best information obtainable beforehand is of the first importance. An agent in respect to station accommodation can only do his best with such loading and shunting accommodation as is available at his station. With regard, however, to empty waggons, an agent may do much by early reporting to headquarters the amount of cattle traffic to be expected from forthcoming fairs and sales. A permanent record should be kept, either at stations or at headquarters, of the number of waggons used at each periodical fair or sale. This record, posted up from time to time, affords a guide to indicate the number of waggons likely to be required at a station to meet the demand at recurring fairs and sales. On the morning of a fair or sale, some opinion may be formed from the number of cattle congregated whether the fair or sale will be above or below the previous one, and the telegraph can then be used to call for more waggons if same appear to be necessary.

Many of the persons engaged in the cattle trade, who come into business contact with railway officials, are eccentric in their ways and language, and probably no class of the public give more trouble or originate more law suits. They seem imbued with the belief that because they pay large sums of money for value exchanged, i.e., conveyance, the company and their officials are the obliged parties. Presuming upon these false premises, many persons sending and receiving cattle by railway indulge in language both violent and unparliamentary. It is quite useless for an agent to attempt to discuss or retaliate, because his vocabulary will be quite inadequate, and besides such a course would only be playing into the hands of these grievance-mongers. Exchange of expletives does no good, but rather intensifies the

situation. The safest course, and the one that probably annoys the grievance-mongers most, is "avoidance of argument;" but this must be supplemented by keeping to the strict line of duty incidental to the carrier's responsibility, and the doing of the best thing that can be done under the existing circumstances. Avoid argument, and if fault has occurred, remedy it as far as possible, and that quickly.

Taking the gross amount of compensation paid by railway companies, the sum arising upon the cattle traffic probably exceeds that paid under any other traffic head. Furthermore, the largest proportion that has to be paid comes under the heading of deterioration, arising from delay and consequent loss of market. Fat cattle delayed and unavoidably kept without food lose weight and marketable appearance, and if the *reasonable time* allowed by the law has been exceeded in the transit, the carrier is amenable for the deterioration. Cattle on long journeys, when the carrier does not exceed the *reasonable time*, must lose weight, but a definition as to the weight lost between the end of the *reasonable time* and the end of the period of delay is not ascertainable. Cattle during, say, a twelve hours' journey, the twelve hours being a *reasonable time*, may still have suffered considerable loss in weight and appearance, but no damages are recoverable. If, however, a delay of four or five hours is added to the twelve hours, the carrier is mulct, not for the actual four hours' injury only, but practically for the entire accumulated injury. Deterioration to cattle in value by delay appears to be an "unfixed quantity." Thus the measure of damages resolves itself into a huxtering compromise, each side trying to "best" the other. The character and kind of feeding a fat beast has undergone, may be an element in the question as to the amount of flesh-weight loss that takes place per hour, while the beast remains unfed. It would be a very useful inquiry if some scientific veterinary authority were paid to conduct a few experiments with average fat cattle, to ascertain, even when the cattle are not travelling, how much flesh weight is lost per hour, when the animals are kept without food and water, and also without food but with water. No doubt the ratio would largely increase after twelve hours and beyond that period, as the time might be extended. Scientific evidence of this kind, given at two or three well-contested trials, might elicit a code of rules for the courts calculated to largely reduce compensation for delay to cattle.

An agent trying to avoid delay has two matters to particularly watch, (1) that no delay occurs at his station either in the forwarding or delivery of cattle, (2) that he does not book cattle beyond his own company's junction to a foreign station without knowing there are corresponding goods trains connecting at such junction with his company's local train, to take the cattle forward on to the foreign company's station.

In the first case, if the cattle are loaded and the ordinary goods train usually arrives fully-loaded, it is then a wise precaution to send a telegram to the guard to intercept him at a station at which he has to stop, warning him there are so many waggons of cattle to take on. In the second case, if the agent has not sufficient information as to the possibility of the cattle being sent forward beyond his company's

junction, he should *warn the sender* and not book beyond his company's junction, at the same time pointing out to the sender, that if the cattle were sent at a different hour by another train there would be no doubt that the cattle could then go through. A company is not bound to accept through cattle for foreign stations to go by every train, but if the cattle are accepted the responsibility to forward in *reasonable time* is then incurred.

Before waggons are available for receiving cattle, they must have been disinfected.

In cleaning and disinfecting cattle waggons the first essential is a good supply of water that can be carried from water hydrants by leather hose into the waggons. At the end of the hose should be fixed a branch pipe or nozzle, about eighteen inches long, and with either a half or three-quarter inch diameter mouth at the delivery point, according to the pressure of the water. The greater the pressure the greater the diameter may be. The pressure of the water is of great service, and, if the pressure is strong, it saves a great amount of labour in the scraping and sweeping of much of the dried and hardened droppings, caked on the waggon floors.

A shovel is necessary to lift out from the waggon the loose dirt, and to scrape from the wood some of the hardened droppings, and then a bass broom is of service to sweep out the loosened parts. The hose should then be set to work and the water thrown on the bottom and sides of the waggon, and the greater the pressure of water the more the particles are washed away. A sailor's three-cornered boat scraper or a mason's trowel is then of service to scrape and loosen the remaining droppings. The hose is then turned on again and the water carries away pretty well all the loosened particles, and the waggon is then thoroughly cleansed, if the process has been faithfully carried out. The white-wash is then put on as thickly as it will lie, both on the bottom, sides, and rails of the waggon, and left to dry, which takes from one to five hours, according to the dryness of the weather. At large stations it is necessary to have one or more cleaning sidings, each holding a train load of waggons, and with water hydrants fixed at suitable distances, so that one or two gangs of men can be at the work at the one time on say, thirty waggons. Nothing but pure lime should be used in the white-wash, although, if some sulphate of zinc is put into it, the white-wash does not rub off so quickly. *Chloride of lime* should never be used because it will burn the animals' skin and damage them. The Cleansing and Disinfection (Ireland) Order of the Irish Privy Council of September 18, 1878, orders, in section 5, that there shall be four ounces of chloride of lime to each gallon of lime-wash. But in the Privy Council Order of May 31, 1880, section 66, the chloride of lime is omitted and the term *lime-wash* is only used. Thus the regulation as to the use of the chloride of lime is revoked.

"THE CONTAGIOUS DISEASES ACT, 1878" (ANIMALS).

By this Act, 41 and 42, cap. 74, which includes England, Scotland and Ireland, power is given to the Privy Councils of each country to make special orders as follows:—

Section 32.—“The Privy Council may, from time to time, make such general or special orders as they think fit, subject and according to the provisions of this Act for the following purposes or any of them :

(21) “For prescribing and regulating the cleansing and disinfecting of vessels, vehicles and pens and other places, used for the carrying of animals for hire or purposes connected therewith.

(22) “For prescribing modes of cleansing and disinfecting.”

The Privy Council Order for England, of 15th December, 1879; and for Ireland, of May 31st, 1880; and for Scotland “The Animals’ Order, 1884,” applies to the disinfection of horse boxes, guards vans (if used for carrying cattle), trucks, vans, movable gangways, and other apparatus and pens as follows :

Section 65.—(1.) “A railway truck shall, on every occasion after an animal carried in it on a railway is taken out of it, and before any other animal, or any horse, ass, or mule is placed in it, be cleansed and disinfected as follows :

(a) “The floor of the truck, and all other parts thereof with which animals or their droppings have come in contact shall be scraped and swept, and the scrapings and sweepings, and all dung, sawdust, litter, and other matter shall be effectually removed therefrom : then

(b) “The same parts of the truck shall be thoroughly washed or scrubbed or scoured with water : then

(c) “The same parts of the truck shall have applied to them a coating of lime-wash.

(2.) “The scrapings and sweepings of the truck, and all dung, sawdust, litter, and other matter, removed therefrom shall forthwith be well mixed with quicklime, and be effectually removed from contact with animals.”

Movable Gangways and other Apparatus.

Section 67.—(1.) “A movable gangway or passage-way, cage, or other apparatus, used or intended for the loading or unloading of animals on or from a railway truck, or other railway vehicle, or otherwise used in connection with the transit of animals on a railway, shall, as soon as practicable after being so used, be cleansed as follows :

(a) “The gangway or apparatus shall be scraped and swept, and all dung, litter, and other matter shall be effectually removed therefrom : then

(b) “The gangway or apparatus shall be thoroughly washed or scrubbed or scoured with water.

(3.) “The scrapings and sweepings of the gangway or apparatus, and all dung, litter, and other matter removed therefrom, shall forthwith be well mixed with quicklime, and be effectually removed from contact with animals.”

Pens.

Section 68.—“Every railway pen shall be cleansed and disinfected, either on each day on which it is used and after it has been used, or at some time not later than twelve o’clock at noon of the next following day, unless the following day is Sunday, and then of the Monday following, and in either case before it is again used.”

Section 69.—(1.) “A railway pen shall be cleansed and disinfected as follows:

- (a) “All parts of the pen with which animals or their droppings have come in contact shall be scraped and swept, and the scrapings and sweepings, and all dung, sawdust, litter, and other matter shall be effectually removed therefrom: then
- (b) “The same parts of the pen shall be thoroughly washed or scrubbed or scoured with water: then
- (c) “The same parts of the pen shall have applied to them a coating of lime-wash.
- (2.) “The scrapings and sweepings of the pen, and all dung, sawdust, litter, and other matter removed therefrom shall forthwith be well mixed with quicklime, and be effectually removed from contact with animals.”

Fines for Offences.—(41 and 42 Vic., cap. 74).

Section 60.—“If any person is guilty of an offence against this Act, he shall for every such offence be liable—

- (a) “To a penalty not exceeding twenty pounds: or
- (b) “If the offence is committed with respect to more than four animals, to a penalty not exceeding five pounds for each animal: or
- (c) “Where the offence is committed in relation to carcases, fodder, litter, dung, or other thing (exclusive of animals), to a penalty not exceeding ten pounds in respect of every half ton in weight thereof, after one half ton, in addition to the first penalty of not exceeding twenty pounds.”

In the case of *Malcolmson v. Irish South-Eastern Company*, tried at Carlow Spring Assizes, 1859, Chief Justice Monaghan held that the company may refuse to carry *distempered* cattle, or cattle ill of any *infectious* disease. The cow in question had the murrain.

In the case of *Malpas v. London and South-Western Company*, tried in the Court of Common Pleas, January 12, 1866. Chief Justice Erle held that in respect to a waggon of cattle, Guildford to King's Cross, the booking clerk had by conversation with sender bound the company to a through contract, although the cattle were only booked to Nine Elms. The booking clerk, however, had quoted fourteen shillings as the through cost, and as a fact fourteen shillings was charged “to pay” to consignee at King's Cross cattle market by the North London Company.

In the case of *Cox v. Great Eastern Company*, tried in the Court of Common Pleas, February 12, 1869, it was held by three Justices that the company could not charge a shilling for disinfecting a cattle waggon. The service of cleansing done was not a service done to the plaintiff individually as contra-distinguished from the rest of the public.

In the case of *Shaw v. Great Southern and Western Company*, tried in the Court of Appeal (Ireland), January 26, 1881, the Master of the Rolls held the company liable for injury to a number of pigs, caused by a preparation of lime and chloride of lime-wash coming upon the pigs' bodies off pens in which they had been confined for a time at

the forwarding station (plain lime-wash will do no harm, but the chloride of lime will burn the animals' skins, and hence it should not be put into any lime-wash as an ingredient).

In the case of *Great Northern v. Savfield*, tried in the Court of Exchequer, April 22, 1874, the facts were—A horse arrived at Sandy Station at ten p.m. and no person being there to receive it, and consignee's residence being sixteen miles away, the horse was sent to livery. Next morning a groom applied for it but refused to pay sixpence livery charges. The horse remained at livery four and a half months, at a cost of seventeen pounds. The company ultimately sent the horse to consignee's residence and sued him for the seventeen pounds, and recovered it. Chief Baron Kelly said—"But no one was there to take the horse. What was the duty of the company to do? Had they any choice? They must either have allowed the animal to stand somewhere on their station until it was starved—a place of danger where it would have been exceedingly improper to have allowed it to remain; or they must have turned it into the high road to the danger of itself and all the Queen's subjects; or they must have put it in safe custody, namely, under the care of a livery stable-keeper who lived close at hand. I do not entertain a doubt that the company are entitled to recover the money from the defendant for whose benefit they have incurred the expenditure."

In the case of *Gordon v. Great Western Company*, tried in the Court of Queen's Bench, November 18, 1881, cattle, Waterford to Gloucester, were made "to pay" in error, as carriage had been really paid in Waterford. The company, probably not receiving their advice, withheld delivery of the cattle for a day, but fed the cattle. The Court awarded thirty-five pounds for the delay and injury to the cattle.

Either during the disinfecting process or before the cattle or horses are put into a waggon, the traffic employees should see that the waggon floor is unbroken, and that there are no boards loose in it, and that all is apparently sound and fit for use. Care should also be taken that the waggon is properly greased (see greasing), as hot axle-boxes with smoke and fire coming out of them, may so frighten cattle or horses that one or two may contrive to get on the backs of the others, jump out of the waggon and get killed. The ordinary wheel-tapper's examination should be made with cattle as with goods waggons. The company are required to provide a safe and efficient vehicle. Cattle waggons have usually battens nailed crossways over the floors, so as to give the cattle foothold during shunting, and so prevent a weak beast slipping down and being trampled upon. Vans or covered waggons are not always furnished with battens, not being in regular use for cattle traffic. When vans or covered waggons without battens have to be used, a few shovels of sand or gravel thrown over the floor of the waggon is the best substitute for the battens.

It is an admitted fact that horses will kick, and if they kick a hole in the floor of a waggon, the legal presumption is that the waggon was unfit or imperfectly constructed, and the onus to prove otherwise rests with the company, who would be expected to prove (1), that the

wood was sound; (2), that it was of sufficient thickness; (3), that no board was loose, but that all the boards comprising the waggon floor were securely fastened down; (4), that the animals were unduly vicious; (5), that it was owing to their own vice alone that the damage occurred.

The use of straw or hay on the floor of the waggon is forbidden by most companies, because cases have arisen where either sparks from the engine, or the remains of some careless drover's pipe, has set fire to the straw and the cattle have been destroyed. This risk does not arise with dried turf, sawdust or tan, and hence either of these substances can be used as bedding in waggons for cattle.

The difference in the size of cattle waggons occasions constant wrangling on the part of the senders of cattle, and is likely to ultimately result in head rates, with a fixed number of cattle as a minimum for which a waggon can be supplied, the same as two tons is the minimum load for station to station goods. This would do away with the half waggon charge, and the minimum number would practically be the substitute. Cattle senders are equal in ingenuity to the makers of Chinese puzzles. Two or three senders often display this characteristic by mixing their cattle, and then demanding so many particular sized waggons which they have previously discovered are not in the yard available. Then in substitution other sized waggons are given by the company, and thus, by the clubbing together of the cattle, the company are deprived of perhaps two or three additional pounds sterling for carriage, which would have been receivable had each sender's lot of cattle been loaded on its own merits. The company are legally responsible to carry, but not to carry in any sized waggon that the sender thinks fit to unexpectedly demand, to suit his pocket.

The act of loading should precede the act of booking and acceptance of charges, because if the carriage is accepted beforehand and it is subsequently found that the number of waggons are insufficient for the cattle offering, the company may be held liable for the loss arising from any inability to carry, because the acceptance of the money for the carriage clinches the contract to carry.

Before allowing horses to be loaded for conveyance at waggon load rates, the sender should be required to make the declaration as to *his* valuation of the horses not exceeding ten pounds each. Waggons with specially good sound floors are required for horses as some young horses are powerful kickers. Although the declaration may be signed, still the loading should be completed before the actual acceptance of the carriage.

A loading note should be used by the cattle foreman showing the names and addresses of sender and consignee, the number of cattle, destination, waggon number, &c. When the sender takes this note, duly signed by the cattle foreman, from the cattle loading bank to the office, the booking clerk may accept such as evidence that the cattle are loaded and that the carriage can then be accepted. If a cattle foreman is known to fill up such a note before the cattle are actually loaded he should be fined and sharply reprimanded.

Cattle are carried upon a contract that the senders load and the consignees unload them; but still it must not be taken as a rule that the company are absolutely free from legal responsibility during the act of loading, before the act of loading or after the act of unloading. If the company's porter who is present to count the cattle during the act of loading or unloading presumes to give any instructions and it can be shown that his act led to an accident or damage, the courts will mulct the company. Again, if the area into which cattle are brought to be loaded into the waggon is insecure and imperfectly fenced, and thereby the cattle get on to the line and are killed, the company may be held responsible; much, however, depends upon the fact as to the time of day or night, the light, and whether the owner had a reasonable opportunity of controlling the movements of the cattle.

Senders will sometimes unduly crowd cattle into a waggon just to get them past the scrutiny of the forwarding station people, afterwards, on the arrival of the train at the first or second station on the journey, the sender or drover travelling with the train will profess unexpectedly to find his cattle over-crowded, and, in consequence, suffering injury. Then there may be the proffer of a "tip" to the guard to allow two or three of the cattle in the crowded waggon to be transferred into a half waggon load that may be on the same train. The object is to only pay for one waggon load but to get the cattle actually carried as a waggon and a half waggon, thus depriving the company of the carriage on the half waggon. Where two senders from and to the same stations can club their cattle together to make two half waggons, and thus fully load one waggon, there can be no objection to such being done, provided the cattle are entered in the name of only one consignee.

After the cattle are loaded the doors should be securely fastened, *on both sides*, by the cattle porter. The foreman or foreman shunter, or some second person who took no part in the loading or counting, should afterwards look round the waggons to see that such has been done. Where waggons have falling flap doors it may be very serious if, during the journey, from insecure fastening either of these doors should open and cattle fall out, or break their legs, or otherwise become injured. If the fastenings, from wear and tear, have become loose and insecure, they should be tightened by a piece of wood, if nothing better can be done at the moment, and the waggon reported for repairs, which should be done before it is again used for another journey.

Waggons with cattle should be carefully labelled *on both sides*, and it is usually customary to label them to *final destination* station on the foreign company's line, even if the cattle are only booked to the junction. Some companies show on the label consignee's name, address, number and description of animals, and the words "carriage paid," or in certain cases the amount of charges "to pay;" thus, if a waggon from mischance arrives without an entry the delivery can be made to the right consignee immediately on arrival. It is of great importance to write the route in large letters and distinctly on the waggon labels, as the consequences in some cases may be very serious if cattle are sent the wrong route and thereby delayed.

When box or covered waggons are used for cattle the covers should be *very securely* tied up, because if from the blowing of the wind or the horns of the cattle, or otherwise, the covers should become untied and fall down, the cattle would most likely be stifled, which has once or twice happened, and the company will then be held responsible.

Cattle have been killed by being loaded in a covered waggon that had been previously used to carry salt, and the waggon not having been properly cleansed, contained some remains of the salt, possibly the ammonia in the droppings of the cattle mixing with the salt, may have generated a noxious gas which stifled them.

It is a common practice for senders of cattle to convert persons, perfect strangers to them, into drovers, to travel in charge of cattle. The hangers-on and helpers who do odd jobs for any or every cattle sender, travel free all over the United Kingdom in this manner. While the companies are agreeable to carry free some one or two persons, according to the number of waggons booked, it certainly does not much matter who the sender elects to send, provided the sending of a man who *has been identified by the sender* limits the company's responsibility. The sending of a person, however, is open to question, for in Ireland it is found that a person accompanying a train as a drover, has been known to keep a written record of all the stoppages and delays arising to a train. If an engine breaks down or a difficulty arises with the staff in working a single line, these drovers keep a record of all the facts, and swear to them in the witness box when the trial comes on for delay and loss of market. Where drovers are allowed to travel with the cattle, all the station agent has to do is to prevent more men travelling than is allowed to the number of waggons of cattle booked, and to make the sender identify the men who are to go, so that he can not repudiate them afterwards. The Board of Trade recommend that suitable vehicles should be put on the front of goods and cattle trains for drovers to ride in.

Waggons loaded with cattle are always best at the end of a train, because they undergo less shunting. A train stopping to put off and take on waggons, those waggons situated a third or half-way down the train are liable to be shunted and knocked about at every stopping station. If cattle get too much or too violent shunting, their flesh is liable to be bruised, and furthermore it seems to affect the nervous systems of the beasts and depreciate them in appearance and selling value. It is said by cattle senders that beasts arrive in much fresher condition after a sea voyage than after a long railway journey.

Before loading cattle, some consideration should be given as to their reception at destination—(1), whether the train is timed to stop at the station for which the cattle are intended; (2), when the cattle will arrive at a local or foreign station in the middle of the night, whether any of the company's servants will be in attendance to make delivery; (3), when cattle are to be despatched on a Friday night or Saturday, whether there is any fear of their being detained over the Sunday without food and water; (4), when cattle are consigned to a station on a branch line, whether the cattle will arrive at the junction in time to catch the last evening train, so as to obviate a night's delay.

OUTWARDS BOOKING, AND CATTLE TICKETS.

Under the head of loading we have explained the reason for not accepting the amount of carriage until the cattle are first loaded and also the necessary caution to be exercised when loading, invoicing or accepting charges to pay through to foreign stations.

Where the charge is per head for cattle and not per waggon, greater care is necessary as to the count both on the part of the loader and the booking clerk.

All station agents are familiar with the Carriers Act, relieving the carrier of responsibility for the loss of *certain* kinds of goods of over ten pounds value, *when the value is undeclared*. "The Railway and Canal Act," 17 and 18 Vic., cap. 31, section 7, has a somewhat similar provision with respect to cattle, only in this latter case the company have to pay certain minimum sums in the event of the loss of different kinds of cattle, unless at the time of booking the cattle are then declared to be of greater value, and insurance paid accordingly.

Thus the booking clerk must take care that if the value of the cattle is declared verbally, or in writing, and the value exceeds the amounts fixed by the Act, the usual insurance charge should be collected from the sender. It is this Act, making a company liable for fifty pounds for a horse, which has led to the regulation that when young horses are carried in cattle waggons at cheap rates they must be declared as under ten pounds each in value. The section of the Act is as follows:—

"Provided always that no greater damages shall be recovered for the loss of or for any injury done to any of such animals beyond the sums hereinafter mentioned, that is to say for any horse, fifty pounds; for any neat cattle per head, fifteen pounds; for any sheep or pigs per head, two pounds, unless the person sending or delivering the same to such company shall, at the time of such delivery, have declared them to be respectively of higher value than as above-mentioned."

It is of vital importance when the sender desires to avail himself of the "owner's risk" rate, that the formalities which are required by the law to constitute a special contract, should be carefully carried out (see under Special Contract). When there are several lots of cattle to be booked, the booking clerk may facilitate matters if he can assemble together three or four senders at a time, and read over to them the conditions of the special contract. If the cattle are brought to the station by a man who cannot write, his cross will bind the sender, provided he really be the individual the sender has sent to book the cattle, and to act for him. When taking the man's cross on the counterfoil of the cattle ticket he should be required to take the pen in his own hand and make the cross, after which the booking clerk should append his initials, so that, if necessary, the latter may be able afterwards to attest the signature in a law court. The company's clerk must also sign the cattle ticket given sender, which is the counterpart or copy of the special contract. The same remarks, with regard to the time that goods will reach their destination, equally apply to cattle. In fact, still greater caution should be used with cattle

traffic, and especially if the sender moots the question, perhaps in an innocent kind of way, as to when the cattle will arrive. A conversation between sender and the loading foreman may be accepted by a law court as parol evidence of a special contract with the sender that the cattle should arrive in time for a particular market or fair.

If senders apply a day in advance for a particular number of waggons or for waggons of a particular size, an agent should not promise to supply them, because such promise would mean a contract to do so on the part of the company. The agent should tell applicant that he will telegraph a request to headquarters, and if the waggons *are available* no doubt they will be sent. If a reply to the telegram is obtained promising the waggons, then a post card might then be sent to the applicant informing him accordingly.

The prepayment of carriage on cattle is usually compulsory, as very frequently the persons who accept the delivery of cattle at the destination station are merely drovers and are not supplied with money to pay carriage. All carriers by ancient law and custom can demand their hire before accepting goods for conveyance, and cattle as a sequence follows in like manner. With cattle for foreign stations *not* booked through, carriage to the junction only should be accepted, because acceptance of a larger sum might be taken to constitute a through contract, although the ticket may have been only made to the junction.

Cattle rates, either in a book or on a sheet, should be kept clean and be easy for reference at any moment.

Cattle tickets are too frequently made out in a slovenly manner and in illegible writing. A cattle booking clerk with much work must be a quick, legible writer, or he is quite unfit for the duty and should be removed. It is important that the following particulars and figures on the cattle ticket should be unmistakeably clear

1. Consignee's name and residence.
2. Sender's name and residence.
3. Numbers of each waggon.
4. Numbers of animals and description.
5. Whether half or full waggon.
6. Booking clerk's signature.
7. Rate and amount "paid."

Some companies provide a guard's cattle way-bill showing the number of animals in each waggon, while other companies leave the guard to enter the number of the waggon on his waggon road-bill. It is in some cases customary with cattle for foreign stations to make out and give to the guard a duplicate way-bill, to be handed at the junction to the company taking forward the cattle. It is essential that the guard should have some document showing the destination of the waggons, in case the waggon labels blow off, or fall off from being saturated with rain. When no drover travels with the cattle the cattle ticket must be given to the guard, otherwise sender's drover should receive and carry the cattle ticket.

On the issue of drovers' free passes, where the sender books the cattle himself, he should be required to bring up and identify the drover or drovers he elects to send, otherwise the passes may be handed from

one man to another, and perhaps be used by a strange man unknown to the sender, and whom the sender might repudiate if any accident occurred, and the company's responsibility becomes thereby affected.

INWARDS CATTLE.—UNLOADING AND DELIVERY.

The necessity of quick despatch as urged with outwards cattle, is equally necessary at the receiving station in the unloading and delivery of inwards cattle. At small stations the situation of the cattle landing platform does not always admit of the train engine leaving the waggons shunting them direct into this platform siding. This is unfortunate, and the difficulty has to be met either by the aid of a shunting horse or by hand shunting. Whichever way the work has to be done, it should be done quickly after the waggons of cattle are thrown off from the train. The cattle ticket should be taken up without delay, from either the drover or the guard, whichever may have it, and the charges, if possible, checked before the cattle are unloaded from the waggon. With some kinds of cattle the number may be more easily counted in the waggon than when the animals are scattered about the platform, for then two or more lots may have become mixed. If there is an undercharge arising either in rate, number of cattle, excess over half a waggon, transference during the journey at an intermediate station, or otherwise, it is better for it to be discovered before the waggon doors are opened, because it is then easier to detain the cattle until the undercharge is paid, if such a course becomes necessary or politic. Care should be taken to check the waggon numbers on the cattle ticket with the number on the waggon.

Some consignees, in cases of delay or damage, object to give up the cattle ticket, but this should be insisted upon, if even only a partial delivery is made. Where a lot of cattle have been destroyed in a collision, and there is nothing to deliver, then the giving up of the cattle ticket cannot be reasonably insisted upon.

In some cases the giving up of the cattle ticket, like the giving up of a post office order, is taken to be a release of all further liability, and a completion of the contract. We, however, prefer, where time and circumstances will permit, to take the signature of the person who accepts and takes away the cattle on behalf of the owner. Where the cattle are delivered to another railway company or carrier a signature should always be taken, showing the date and time of delivery.

The legal feature of responsibility as to loading is mentioned under outwards cattle, and the same applies to unloading. The company's men should not assume a leadership, or too freely give orders to the cattle owner about the unloading. They should rather keep somewhat in the background while making suggestions for the owners to adopt, at their own risk, in the case of specially troublesome or wild beasts. Seeing that the company repudiate the responsibility of unloading cattle, the act is more that of placing the cattle at the disposal of the consignee, rather than performing the act of delivery, as understood with respect to goods. The waggon must be put into a suitable place where the cattle can walk out, and where the space reasonably

admits of the consignee controlling the cattle from suffering harm, after the cattle have actually walked out of the waggon. We think the act of unfastening and opening the waggon doors is better left to the consignee or his servant, because that is really the first overt act which leads up to the unloading. Care, however, must be taken that no person should be allowed to unfasten the waggon doors, until the waggon or train comes to a *permanent stand still*.

In the case of *Prenty v. Midland Railway*, Law Times, vol. 15, page 24, it was held that the carrier could not detain a consignment of forty-four pigs for an undercharge on three pigs over the number allowed for half a waggon. The judge declined to express an opinion, whether or not the company could have held the three pigs upon which the claim for the undercharge arose. If a detention of cattle is necessary to recover an undercharge, it will thus be safest to only detain that portion of the consignment upon which the undercharge actually arises, when the undercharge happens to be on a part and not upon the whole of the consignment.

The undercharges and overcharges are adjusted by undercharge ticket and overcharge sheet, much in the same way as with goods traffic. There should be some check upon the person who collects the cattle undercharges, to insure the prompt payment of such amounts to the station cashier.

Great difficulty arises at the receiving station if no consignee applies for the cattle on arrival, and when they are unaccompanied by a travelling drover, or in the case of cattle arriving without a ticket, and consignee's name not being given on the waggon label. The vital point is that the cattle must not be allowed to deteriorate for want of food and water, and that should be the agent's chief consideration, irrespective of any reasonable cost for livery, or who may be in fault. The time of day or night of arrival, the length of the journey, the condition of the cattle, the period of the year and the weather, are all questions for consideration as to how long the cattle can be advisedly kept in the waggons or company's pens waiting consignee's application, or telegraph information as to the name and address of consignee. If there is reason to expect that consignee will apply for the cattle in one or two hours after arrival, or he can be sent to, it may not be wise to send them to livery at once, but the legal liability of the carriers is to *take reasonable care* of the cattle, which means food, water and shelter. If these sustainers cannot be afforded at the station, it is safest, after a reasonable time, to send the cattle to livery, as it is better to have a dispute upon a small claim for the livery charges rather than a much larger claim for deterioration. These remarks also apply to cattle that from delay have arrived at the receiving station too late for shipment, fairs or shows, and also when refused by the consignee.

At shipping ports great contention arises in respect to the rotation in which each consignment of cattle should be shipped. The cattle is usually received into the company's cattle yards, and a yard book is kept, and as each lot of cattle passes into the yard it is progressively entered into this book and then shipped in the same progressive order, first lot in, being the first lot out for shipment.

Charges incurred at intermediate stations for food or water supplied to cattle should be charged on an invoice "paid on" and "to pay," and the invoice sent forward by the guard with special instructions to deliver same before the cattle are unloaded, so that the receiving station may secure the charges, or, if necessary, detain the cattle.

Cattle found on the line injured or uninjured, may either have jumped out or fallen from a waggon, or have strayed on to the line. Evidence of injury, bruises, &c., would rather indicate the former contingency. The cattle in any case should be fed and taken care of, and the goods manager advised by telegraph. If an animal has broken bones or appears to be injured beyond recovery, it is better to quickly cut its throat and bleed it so that the carcase may be saleable. Cattle sometimes arrive at the receiving station dead or seriously injured, and the consignees refuse to remove them. If dead the animal should be sold to the knacker. If alive it should be either sold to a butcher at once, to kill or be killed on the spot and the carcase subsequently sold.

YARD WORK AND MARSHALLING TRAINS.

YARD WORK.

Yard accommodation—separate sidings to sort and classify waggons—inward waggons—outward waggons—waggons with S. to S. traffic—empty waggons to load—watchman to protect loaded waggons at night—guards refusing to take on waggons—loaded waggons delayed at junctions—shunting precautions, close-coupling waggons—telegraphing for additional waggons—outward loaded waggons left behind—train “time-book” of stoppages—water in hollows of sheets—scarcity of empty waggons—waggons for repairs to be so labelled—renewal of worn brake-blocks—bad usage to sheets—waggons unsafely loaded—damages to rolling stock—marshalling trains—guard’s brake to be last vehicle on train—loading waggons in station order—gridiron siding—disabled waggons left off—points being kept clean—waggons off the line—salt for points in frosty weather—van lamps—greasing, and how to do it—attendance of guards half an hour before train starts.

THE efficient working of a yard depends entirely upon the space and siding accommodation available, and the form in which the sidings and points and crossings have been laid out. It is probable that the early engineers who planned the sidings of station yards never marshalled a train in their lives, nor could they do so, if required. Most of the engineers we have met in our time have been griffins as to a practical knowledge of such work. When stations were constructed, certain plots of ground were apportioned for the station yards, upon which sidings were laid down, so as to cover the ground, but without due consideration being given as to their fitness in relation to the work to be done. When the traffic commenced, the working staff, by the aid of shunting engine, shunting horses, tail ropes, and often subsequently added turntables, have somehow contrived to get the trucks moved about and the trains started. There is hardly a station yard that does not exhibit evidence of patchwork in respect to the arrangement of the sidings. Urgent necessity has forced the putting down of a turntable here, a crossover road there, or a pair of points somewhere else to make the place workable. Large sums of money have been expended in such alterations; and practical men, familiar with many large stations, well know that if the yards had now to be laid down, the arrangement would be altogether different and considerable money would be saved. The money, however, has been spent, and the construction work done, and now, in most cases, there is no alternative but to make the best of engineers’ bungling, and get the yard shunting work done as well as possible under the difficulties.

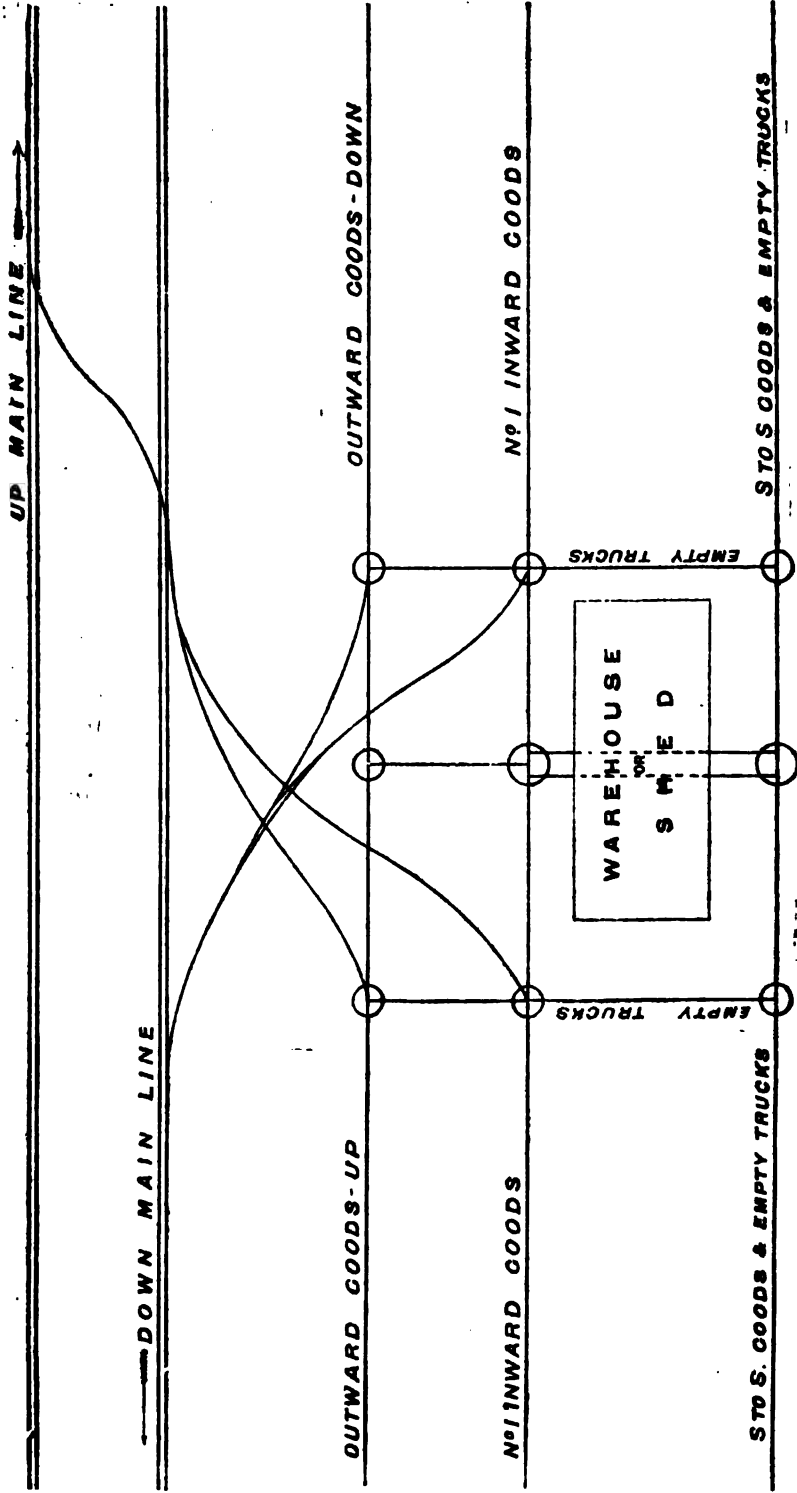
The very diversity in the planning of station yards prevents any uniformity of plan in working them alike. Thus there is the greatest possible scope for originality in working a yard, because each yard has

its own specialities, and these have to be met to keep the waggons and trains moving. An agent clever at outside work must have his mind full of expedients to meet certain emergencies, and he must select from his armoury of expedients those specially suited to work his own yard. In time, by attention, these expedients will become concreted into fixed plans that will permanently control the difficulties and hasten the progress of the work.

The yard work at a station is frequently left to a porter, shunter or yardsman, and more especially where an agent is not what is termed an "outside man." A shunter will understand coupling and shunting trucks and planning to save shunting; but when it comes to the planning of the entire outside work of the station, so that each waggon of goods shall take its regular turn to be dealt with, it is not all shunters who have the capacity and grasp of mind to act to the best advantage and avoid delays. Where a shunter possesses these qualifications and he sees that his agent does not, but leaves all the work to him, it is frequently a question whether or not the work is well done. Where conviction does not quickly follow neglect the latter is apt to become dangerously rife, and it will often occur, that when waggons have been misplaced, arising from a want of arrangement, the inwards goods may be delayed loaded as long a time at the receiving station as was occupied in their transit from the forwarding station. This is very bad, and evinces a want of arrangement and a deficient knowledge of the requirements of good working. We will suppose an agent has just taken charge of a station. One of the first things to be done is to draw out on a sheet of paper the main lines and the sidings, showing where the points intersect. Let the agent then form a plan that he believes will work best with such accommodation as is supplied; then let him ascertain if the shunter has any plan by which he works or whether he dashes at it haphazard, leaving the waggons to tumble about as chance they may, first come, first served. An agent may soon form an opinion of the kind of shunter with whom he has to deal, after a little cross-examination. It is better for the agent to first draw out a plan of his own, as he may devise an improvement upon the one in use. If an agent first learns the plan in use he is liable to fall in with it without calling up his ingenuity to discover a better. Habit grows with bad plans as well as with good ones, and when associated with the bad it obscures our vision of the better. When planning the intended positions an agent must remember to provide for each class of traffic requiring separation. Appointed places are therefore wanted for—

- (1.) Inward waggons of goods *from* up and down main lines.
- (2.) Outward waggons of goods *to* up and down main lines.
- (3.) Standing room for waggons containing "station to station" goods inwards for unloading and outwards for loading.
- (4.) Standing room for waggons of minerals.
- (5.) Standing room for empty waggons.

The following diagram is simply given to convey the idea of the separation of the different classes of traffic requiring to be marshalled in a yard, and not as a design for a station yard:—



Where an agent has not many waggons of either of these descriptions, he should put them into short sidings where he has such sidings available. The inwards goods waggons from up and down main lines will be of two kinds—those containing carted goods, and those containing “station to station” goods. With carted goods that have to be unloaded in the warehouse, the waggons should be put by the train engine into position, leaving them on a line running into the warehouse, provided there is a line in that position accessible for shunting purposes. If this is not practicable, let the waggons be put upon a line from which it involves the least labour to get them speedily into the warehouse. At many small stations there is a line running through the warehouse with a pair of points at one end leading to the up main line, and at the other to the down main line, so that waggons may be easily put off or on from trains going up or down. We shall presume such is the case; if not, and there are only points connecting with one main line, then train engines must tail-rope waggons in from the other main line. It is important to get the *inward* waggons well placed by the train engine leaving them, for with *outward* waggons more work will be done by the train engine taking on the waggons than by one leaving waggons. Still this is no reason why unnecessary and avoidable shunting should be imposed upon a train engine taking on outward waggons. We will call the sidings for receiving inward waggons number 1. A siding is then wanted for waggons containing station to station goods, say number 2. It should be accessible for carts and horses, without their having to go across or too near the main lines. It is also advantageous if carts can get on both sides of it, and the horses can back the carts up to the waggons for unloading purposes, without the horses standing during the unloading process on a line of rails and incurring liability to accident.

Suppose twelve waggons are put into number 1 siding and seven of them are to be unloaded in the warehouse, these seven would stand right, but the other five, containing “station to station” goods, would have to be sorted out. The seven waggons should be unloaded before the consignees come to unload the five waggons containing the “station to station” goods; therefore, at the same time, or shortly after, the seven trucks are being horse-shunted into the warehouse siding, the other five waggons should be sorted out and placed in number 2 siding for the consignees to unload. After the seven waggons are unloaded, provided they are not to be loaded again directly, they must be put out of the way at once, unless the warehouse is sufficiently extensive that they can stand several hours alongside the loading platform until outwards goods can be put into them. In this latter case some portion of the warehouse may be made available for keeping empty waggons in reserve; if, however, such space is not available the waggons must be run out to the nearest convenient siding. This siding should be handy to the warehouse, and one upon which all the empty waggons can be quickly put with as little shunting as possible. If an attempt is made to keep empty waggons in the warehouse and the space is insufficient, a block will certainly occur, and then newly arrived loaded waggons

cannot be brought to the warehouse platform to be unloaded. It is a golden rule, when the space is limited, *to keep the warehouse platform line clear*, that is, as far as possible. This should be impressed upon the men, because to carry it out means unloading the waggons quickly. No waggons should remain three hours loaded after arrival if it is possible to deliver the goods on the same day; and even when it is not, the waggons should be unloaded if there is warehouse space for the goods. Every unloaded waggon placed among the empty ones, on the siding devoted to empty waggons, is one out of the way and one less to contribute to cause a block or cause complications, when the space is limited. This in a measure deals with the inwards waggons, and now as to the outwards. An empty truck upon being loaded to go away, and when it is labelled and ready to be moved should be quickly horse-shunted out of the warehouse on to the siding for the up or the down train, according to the destination. If the traffic is large a siding is necessary for waggons going "up," and another for waggons going "down," to stand upon and accumulate.

Frequently, however, the one siding, accessible from both main lines running through the warehouse, has to be used for up and down trucks inwards, and up and down trucks outwards. This at times causes the most embarrassing complications and mixing of trucks, unless they are well looked after, and leads to trains being delayed and a waste of engine power. Get the inwards loaded trucks empty speedily, and put them out of your way upon the empty siding. In this way the warehouse platform, *which is the centre of operations*, is always accessible, and the goods are distributed on the platform where they are to remain until delivered.

An attempt has been made to give some idea of working waggons; but it is impossible to form general rules applicable to every station, as each is different both in traffic requirements and accommodation. An agent must *satisfy himself* as to the best plan to be arrived at, and post up written instructions on the order board as to the mode in which his system is to be worked. Thus all may recognise one plan of operations, and the men will not be left to waste their time in arguing what they shall do—where this or that waggon is to go, and so on.

Provision should be made in a yard for protecting during the night the goods in loaded waggons by patrolling night watchmen. Many stations are easily accessible to determined thieves, and may require one or two or three night watchmen, according to the character and size of the station. Some station yards extend a considerable distance with outlying unprotected sidings, and in many districts the criminal class are specially active and clever. In a compact and well protected yard, while there are shunters working in it, a patrolling watchman may be unnecessary, but in many yards a watchman is required even when there are shunters at work.

When outwards loaded waggons are *not* taken on by passing trains, the officer of the district should be telegraphed. Goods guards are full of tricks, and if their trains are late, or the weather and rails bad, they will often refuse to take on waggons which should be taken on by their trains. The cry usually is, "I have a full load and cannot

take on any more waggons." The agent or his yardsman should then count the number of waggons on the train, and by referring to the working time table it may be seen what number of waggons the particular train is required to carry. If this does not bring the guard to reason he should be reported to the officer under whose control he works.

Agents at junction stations where waggons are exchanged by two or more companies need to be specially watchful to see that the ordinary trains are enabled to take on the waggons requiring despatch. When this is not possible the agent should at once telegraph to the officer of the district how matters stand, so that special trains, as may be necessary, can be provided. Detentions of waggons at junction stations may be very serious and give rise to innumerable claims.

When a train of waggons has been unloaded at a shed platform or cattle landing, the waggons are often shunted out by an engine; but before this is done the shunter should walk along both sides of the waggons and see that the waggon doors, and particularly falling flap doors, have been closed and fastened. If this has been neglected the unloading checkers should be reprimanded. The doors of waggons are frequently torn off in shunting by this precaution being neglected.

In forming trains shunters must couple all trucks *closely together*, interlacing the two chains. Many breakages occur from trucks being loosely coupled, whereby undue play is given for the buffers to bump together with force. Guards and shunters who may be frequently neglectful in this respect, should be reported to headquarters.

The surface of the ground between the sidings in a yard should be kept free from rubbish and hooks, links, coupling chains, pieces of iron, &c., which should be collected and deposited under cover in a suitable place. Broken links, &c., should be sent to the locomotive department, either for repairs or to be added to the scrap heap.

When there is a scarcity of waggons, if a telegram is sent each night to the official controlling the movement of waggons, stating the number of empty waggons required for the next day's work, an agent then cannot be held culpable if goods are delayed for want of waggons.

Loaded outward waggons are sometimes left behind, having been overlooked. Shunters in such cases are addicted to tearing off the waggon labels, and excusing themselves for not sending forward the waggon on the outward train because it was unlabelled. The loaders in such cases will persist that the waggon was properly and duly labelled before being turned out into the yard. The dispute can seldom be settled so as to fix the blame on either man, therefore the best plan to check such irregularities for the future is to inflict a small fine on both men. At the same time the shunter should be told that he can protect himself in future, by reporting *at the time* any case where he may find a waggon turned out into the yard unlabelled. Should such a case arise the loader should then be fined. Delay to traffic should be treated with severity.

The yardsman, shunter, number-taker or signalman should keep in a memoranda book an account of the arrival and departure of all

stopping goods trains that may leave off or take on waggons. Goods guards, to cover their own delinquencies, or those of engine drivers running short of steam, often put down in their journals delays at particular stations in excess of the actual time delayed; thus if an agent is afterwards asked to explain why the train was delayed so long shunting waggons, unless a record has been kept, there is nothing to depend upon beyond the recollection of the men in the yard. Every help should be given to goods guards, so that their trains suffer the least possible delay.

Badly sheeted waggons either on hand or on arrival should be specially attended to, and if water is found deposited in hollows in the sheets it should be at once removed. After snow storms the melting snow should be removed from sheeted waggons on hand or arriving, for in the case of an old worn sheet, the wet is likely to penetrate and damage the goods in the waggon. During Sundays, when waggons are often standing over the Sunday and Sunday night, this precaution should be provided for by one or two men being specially selected for the service to overhaul the waggons on the Sunday mornings.

Equal care should be taken in searching for "lost goods" in empty waggons both before departure and upon arrival, as is exercised in searching passenger carriages for "left luggage." Sometimes small packages are overlooked in goods waggons from being mixed with the straw used in packing. A shunter, number-taker, greaser, lampman, or other person working in the yard should have the duty fixed upon him.

Difficulties constantly occur at large stations where there are wagon examiners as to the marking of waggons unfit to run. The vicious practice of using chalk still flourishes at many stations. The carriage examiners should be required to use a distinctive coloured label printed for the purpose, and one of these labels should be put on each side of the damaged waggon. The chalk writing "for repairs" should be done away with, seeing that it is not put on to any generally recognised part of a waggon, and is often overlooked, particularly at night time.

An agent would be warranted in preventing a goods train from proceeding on its journey if a guard's brake-van is not the last vehicle on the train, unless the rules of the particular line allow such a practice.

Brake-blocks of vans used on inclines or attached to engines working colliery, iron ore or other sidings, and under the control of station agents, should be well looked after. Many very serious accidents have occurred to trains or parts of trains arising from the inefficiency of worn brake-blocks to hold the waggons when uncoupled from the engine, or to check the impetus when attached to the engine and in motion forward.

Make one man responsible to see that goods in waggons in the yard that are partly unloaded and wholly or partly unsheeted do not get wet. Oftentimes a waggon is opened to take out an odd package urgently wanted, and the rest of the goods are left exposed and for-

gotten for perhaps several hours. Sheets are thus thrown partly off a waggon on to the ground, and as the waggon in shunting operations is afterwards moved the sheet is dragged along the ground whereby it is frequently cut under the wheels of the waggon or otherwise damaged.

Where a loading inspector is not kept at a station, the shunter or yard foreman who marshals the outward loaded waggons is the man who should be made responsible to check and prevent waggons leaving the station unsafely loaded or overloaded, as may be seen from the waggon springs being unduly depressed or flattened. The same man should also examine inward waggons and report such as are received overloaded, that the agents of the sending stations may be cautioned. The outside man working in the yard, and getting a good view of the under parts of the waggons, can judge better as to the bearing of the load upon the springs of the waggon than the men viewing the waggons from the shed platforms.

An agent should require a daily return to be prepared of the numbers of all the sheets on hand (1), to ascertain what is the total number actually on hand; (2), to insure that the sheets are examined and folded up and the numbers chalked outside.

Demurrage on folded foreign sheets may be avoided by sending way bills to the junctions with the sheets, to insure that the Clearing House number-taker catches the numbers, and thereby the company returning the sheet is duly credited.

Nothing is lost by an agent taking a walk round the yard and stables every morning to see that matters outside have an orderly appearance, and that the shunting horses are properly attended to and appear to receive *all* the corn given out for their consumption.

Agents at junction stations should require their outside staff to carefully examine all through waggons with the object of detecting bad loading, bad sheeting, damaged waggons, leakage dripping through the floors of waggons from staved-in casks, and to see that folded foreign sheets are accompanied by way bills. The goods manager should be advised of all discrepancies and casualties discovered, that he may adopt such corrective measures as may be necessary.

Damages to waggons, vans and vehicles generally, should be looked after by the shunters. They cannot be expected to detect obscure damages, such as is the particular business of a waggon inspector attached to the waggon department. Palpable damages, such as bent or broken brake handles, deficient brake-blocks, smashed panels, smashed buffers, broken glass in guards' vans, and such like, should be noticed and reported on arrival of the waggons. Unless discovered *on arrival* the purpose of the detection is defeated, because the guard will affirm the waggons were all right when he left them at the station, and that the damage must have been done subsequently in the yard from violent shunting.

An agent at a junction station should require his number-takers, or the wheel-tappers, to record in a special book kept for the purpose all injuries or damage that waggons may have sustained either at the junction or that were discovered on arrival.

MARSHALLING TRAINS.

The length of time taken by a goods train to perform its journey is a matter of the greatest importance, both in respect to the speed with which the public can obtain their goods, and also the working cost per hour of the train. Ten minutes unnecessary delay on a journey at each of twenty stations accumulates to over three hours. The facility by which trains can detach waggons at stopping stations with the minimum of shunting is of immense importance, so as to save a wasteful expenditure of time. Experience has led to the arrangement of waggons upon a goods train in the same order as the stations stand in the course of the journey. That is, that those waggons may be all put together next the engine which are to be detached at the first next stopping station, and so on. By this arrangement the waggons may be thrown off quickly by one shunting operation. If there are waggons to be taken on at a station, the train must be broken at such parts as to shunt in the forward waggons, and still keep all in "station order." It is surprising how much time is taken up in shunting, and any person not familiar with the practical working, can hardly realise how rapidly the time passes in the process of shunting.

At non-terminal stations with perhaps limited yard spaces, the loading or sorting of the waggons in "station order" cannot always be done, but at least the greatest effort should be made to keep waggons for each particular station together, so that a goods guard on arrival with his train has not to pick, say three waggons out of a string of waggons, in three different places, before he can fit them into his train in "station order."

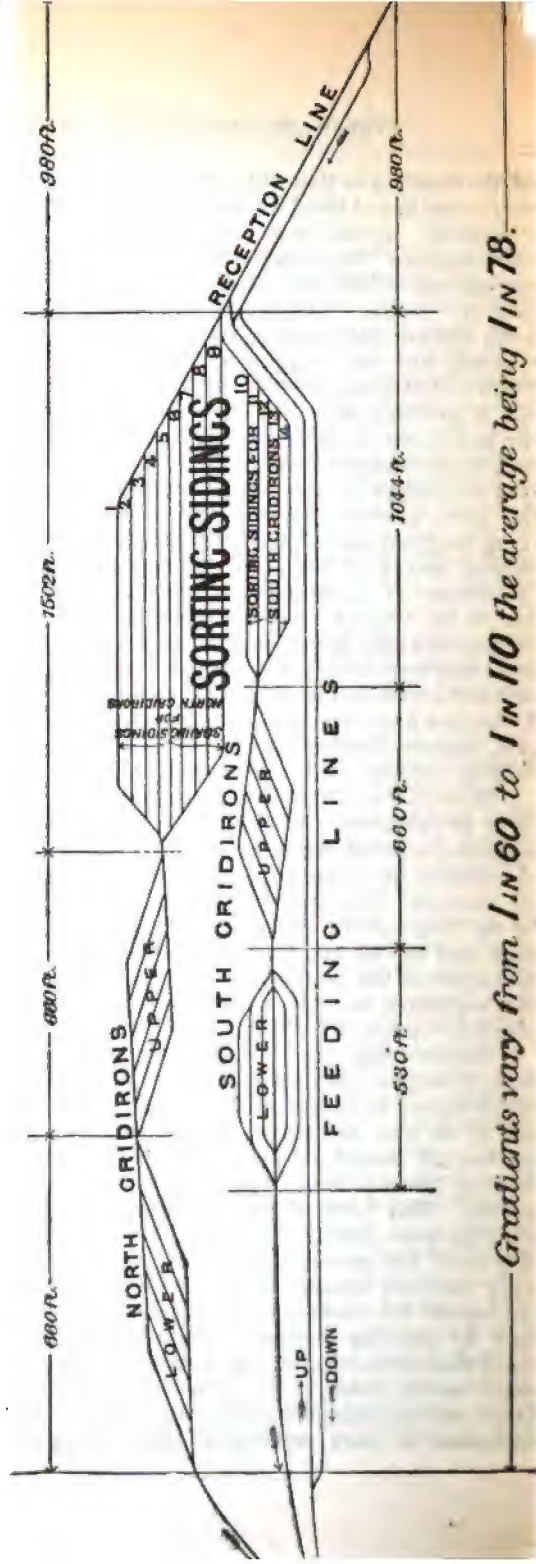
At large terminal stations the forming of trains is often a very long and laborious process. Two classes of waggons for the one station have usually to be dealt with, namely, waggons with goods loaded in the sheds, and waggons of "station to station" goods, loaded at banks outside the shed, and at uncovered platforms. There may be fifty or many more waggons of the "station to station" kind going to various stations, and which have to be forwarded by the same trains that take "shed waggons." These "station to station" waggons are loaded in no kind of station order, but all higgledy-piggledy, and yet they require to be forwarded by five or six different trains. At the close of the day's loading, before any one train can be formed, all the "station to station" waggons must be separated and brought into train order, according to the trains by which they have to go forward. Then these "station to station" waggons have to be blended in "station order" with the waggons loaded in the sheds for each particular train. The waggons loaded in the shed may, with care, be loaded in something approaching to "station order," but that, again, very much depends upon the extent of standing room in the shed for outward waggons. Some modern sheds at large terminal stations will hold nearly a train load of outward waggons. Where this is the case the waggons may, with care, be loaded pretty nearly in "station order,"

and the shunting is then reduced to a minimum, the principal labour being to sort in and blend the "station to station" waggons as the trains are formed. In some cases complete train loads may be made up of "shed waggons" for principal towns, and then the "station to station" waggons can be left and added to odd waggons, and go forward with "pick up" trains. The general character of the traffic requires to be closely studied, and contrivances devised whereby labour and time may be saved, and the waggons quickly sent away on their journeys. Where a shed is too short to hold many waggons and a second line of rails is provided, then two short strings or rakes of empty waggons may be set, one on each line, and both loaded together, using, in such cases, loading boards between the front and back waggons, the goods being trucked on trucks through the first waggon into the second one. This plan, however, increases the percentage of articles loaded in wrong waggons, as sometimes a package will be dropped in the first waggon, instead of being run through into the second, or *vice versa*. The absence of accommodation, however, may sometimes compel this plan to be adopted. Some stations, again, are so constructed that waggons can only be put in and out of a shed by the aid of shunting horses and turntables, one by one, as loaded, and dragged into a large yard and sorted, first in train order and subsequently into station order. If shunters knew the game of chess they would be likely to become good players, because they are so well trained in expedients, in shuffling waggons about upon a designed plan.

If trains are formed in station order by horse shunting, then plenty of turntables, and short "lay-by" sidings are necessary, and the waggons are pulled backwards and forwards over the turntables as they may require to be separated here and there, to fit in a truck, first in one place and then another, to complete the station order formation. As the length of the string of waggons grows longer and heavier to move, and an odd waggon turns up that has been overlooked, or was not sent out of the shed in time, then the engine will have to be brought into requisition to make a few finishing shunts to put the train in complete "station order."

Where trains can be formed into station order by the aid of shunting engines, then sidings of a gridiron form are the best. These sidings should be formed on an incline, so that an uncoupled waggon will, of its own momentum, run down and can thus be turned into any one of several sidings. By this arrangement constant engine shunting becomes unnecessary and time is saved and the work done quicker. This form of laying out sidings, however, requires considerable space, and the premises of most terminal stations are deficient of ground for extension purposes. Great relief would be given to many terminal stations by laying down gridiron sidings a mile or two beyond the stations, out along the line, and running the waggons there by shunting engines twenty or thirty at a time. The trains would then be marshalled and started from these sorting sidings, which would enable trains to be despatched quickly one after the other. These sorting sidings would, with suitable additions, be also very convenient to store superfluous empty waggons, which, when not

DIAGRAM OF CRIDIRON SIDINGS AT EDGE HILL, LIVERPOOL, LONDON & NORTH WESTERN RAILWAY.



required for loading, are a great nuisance in the yards of large terminal stations.

Disabled waggons and waggons left off with loads that require to be re-adjusted, the forwarding and receiving stations must be advised so as to avoid unnecessary trouble or anxiety at a sending station in tracing the waggon and goods.

Unless the points and switches in a yard work freely, waggons, and possibly engines, will certainly be thrown off the line, whereby considerable labour and delay to the work is occasioned, besides possible damage to the rolling stock. The "tongues" of a pair of points cannot go "home" and fit closely, if dirt has so accumulated as to prevent them. Nor will points work easily if the bearings are not freed from dirt and lubricated with clean oil. It should be the duty of one man to go round all the points and switches in a yard at some fixed time of the day to scrape, clean and oil them. If any "run off" occurs, the inspection should be to see if the points are clean and work freely, and if not, the points-cleaner should be punished.

In ninety per cent. of the cases where vehicles leave the line in a yard, the "run off" occurs at the points. The other cases are where either the line spreads or the wheels of a vehicle are out of gauge, possibly from excessive wear. "Running off" at the points may result (1), from the points being clogged with dirt and not closing properly; (2), from unequal packing of the line on one side causing the vehicle to "cant;" (3), from points being much worn and loose, and the pointsman in holding the points handle being unable to exert strength enough to keep the points closed during the oscillation incidental to the vehicles rapidly passing over; (4), from the pointsman, owing to inattention or loss of nerve, loosening the points handle whereby the points spring slightly open and one pair of wheels of a waggon take the wrong line, and the others or some of them of course follow; (5), from vehicles owing to the wearing of the wheel tyres becoming widened and out of gauge and consequently jumping the points; (6), from a stone accidentally getting, or being maliciously placed, between the points preventing their being closed "home."

During snow time points and switches require to be constantly swept, and salt pretty freely thrown down to stop the formation of ice on the bearings, which makes the points stick, binding one piece of iron to another, so that the points become frozen and cannot be moved.

In a large yard waggons will sometimes get off the line, and therefore it is wise to keep a couple of screw jacks, some timber packing, and a set of four "ramps," which in some parts are termed "cramps." There is a vicious practice with some shunters who often drag waggons many yards to the points, when the waggons are then sometimes got on to the line of rails. This dragging process frequently splinters chairs, damages sleepers, tears up the ballast, and is a clumsy method. By the aid of the ramps, a little wood packing (not stones), and a little ingenuity, a waggon may be got on to the line expeditiously and without fuss. By the courtesy and permission of Messrs. Tangyes, Limited, Birmingham, who are manufacturers of

these ramps, we are enabled to give the following cut of these useful appliances—



If it is a very bad "get off," then the screw jacks may have to be used, but before the screw jack is brought into play it should be ascertained with certainty that it has been placed upon a *good solid block of wood square*, placed and free from the chance of slipping or canting. Success depends upon applying the lifting power at the right part of the waggon that is off, so that the lift will be of some service in getting the waggon on or towards the rails. The angle at which the jack is directed is important, or, when the lift is partially made, the packing and jack will topple over and perhaps smash a man's foot.

At terminal stations and junctions a good lampman is most essential. He should be steady and punctual and not above the dirty work incidental to cleaning and trimming lamps. If, from forgetfulness, a train is allowed to be started without a tail or side lamps attached to the guard's van the most serious consequences may result to life and property, as the train may be run into by another train following it. A lampman should especially be in advance of his work and have the van lamps ready hours before they are required. Nothing looks worse against a station on a goods guard's journal than "delayed fifteen minutes at — station waiting for van lamps." There should be no emergency as to cleaning and trimming lamps, because the work can be done in anticipation of the want. An unpunctual man is unfit for a lampman, so likewise is a man given to drink. If the supply of lamps is insufficient, as sometimes happens, the officer of the district will sanction any further supply that may be shown to be necessary. Should the lamps run short from not being duly returned or properly worked, the assistance of the officer of the district should be sought to amend such a condition of affairs.

Greasing seems a very insignificant matter, but simple and uninteresting as it may appear, it is a process that, if omitted, gives rise to most serious consequences.

Where there is not sufficient greasing work to fully employ one or more men, the yardsman, or some particular porter, should be fixed upon to do the work.

The greasing of loaded waggons should not necessarily be left until they are marshalled for despatch on an outgoing train. True, that waggons cannot always be examined and greased on both sides when in the shed alongside a platform, but even then the axle boxes on the one side may be replenished with grease, which means doing half the work, and when there are a large number of waggons this amount

to some considerable labour. The quicker the waggons are greased after arrival, whether empty or loaded, the better, for then there is more time to get the work carefully done, than if the greasing is left until the waggons have been loaded. Greasers usually adopt some kind of mark, either a chalk mark or a tip of fresh grease with the grease knife on the lid of the grease box, so that they may know afterwards whether or not a particular axle box has been replenished. Although inwards waggons may be ever so carefully attended to on arrival, still the axle boxes must be closely examined before the outwards train is despatched. Greasers have usually one or two particular points in a yard where they intercept the outwards loaded waggons as they are shunted from the sheds or banks. Here, if it is found that an axle box bears the greaser's mark, nothing further remains to be done, but if two axle boxes on the one side of a waggon are found not replenished with grease, this is the point to catch up the omission and do the work.

The first thing a greaser has to do on opening a waggon grease box, is to put the iron pricker down the one or two grease holes at the bottom of the axle box to see if the holes are free; if not, then he may know that dirt, gravel or sediment has choked up the hole or channel and the grease cannot flow freely to lubricate the waggon journal. It is then necessary to take out all the grease from the box and scrape out the holes with the pricker and thoroughly clean out the grease chamber. A little oil put into the grease hole when clogged, helps to loosen the dirt plugging up the hole, and the oil also lubricates the journal during the interval until the grease melts.

The grease knife should have a specially pliable steel blade about twelve inches long and two inches wide, so that it may have plenty of spring in it to press down the grease into the box, though some men prefer to work with a shorter knife with less spring.

In putting new clean grease into an axle box, the grease should be well pressed down in solid form so as to fill the chamber completely. If this is not done the lower part of the grease becomes consumed while the top part does not sink but clings to the sides of the chamber half way down, and the consequence is the journal is not lubricated and the axle becomes hot.

The hand grease box for carrying the grease should have a division in the centre dividing it into two compartments—one compartment should be used for clean new grease and the other for dirty grease taken out of the waggon grease boxes. When the one compartment is full of dirty grease, it should be transferred to a cask kept for the purpose, as it is worth a pound or two per ton. The hand grease boxes should be kept scrupulously clean and occasionally boiled in hot water and soda. They should have well fitted lids to prevent gravel and dust becoming mixed with the grease and thus finding its way into the grease hole. As the grease is consumed in the axle box, gravel or dirt that may be mixed with it gradually sinks into the grease hole and forms a plug, stopping the further flow of grease down the grease hole. Greasers sometimes drop their grease knives or a lump of grease on to the gravel, and in picking up same small stones and dirt adhere

and become incorporated with the grease and ultimately find a resting place in the grease hole.

A guard should go round all his waggons before starting his train and see that the greasers' work has been properly done.

The supervision of goods guards at terminal stations where goods trains start is often very troublesome, particularly when trains leave in the middle of the night or early morning. Sometimes the men from family ties live far away at inconvenient distances, and it is very difficult to get them to attend at the stipulated time before the train is due to start. Fines, as a last resource, must now and then be resorted to. If a guard does not attend in due time he cannot examine his train to see (1), if marshalled in station order; (2), if the waggons appear to be securely loaded; (3), if the waggons are well sheeted, and the sheets are securely tied down; (4), if the waggon boxes are full of grease; (5), if the numbers on the waggon road bill are correct with the numbers on the waggons; (6), if the waggons are all labelled; (7), if the road tranship waggon is on the train in a suitable place, and a road tranship bill ready made out; (8), if the appliances, viz.:—spare couplings, fog signals, signal lamp, flags, &c., according to regulations are in the van.

A Goods guard must obey a station agent while his train is within the limits of a station, but strong language is very frequently necessary to make him submit.

When goods are put into a road goods van damaged or leaking, it is reasonable that the same should be noted on the tranship bill, otherwise the guard might unfairly be charged with having caused the damage while unloading other packages from the van.

CORRESPONDENCE.

How to attain a running hand—lessons in writing—*précis*, or making digests of cases—shorthand applied to correspondence, with Pitman's system and lessons—correspondence, public—correspondence, station—registering letters—plan 1—registering—preserving files of papers, registrar's duties—outwards register book, inwards register book—outwards repeats, inwards repeats—index, A B C register—telegraph messages—plan 2 at Glasgow—plan 3 at Manchester.

THE quality of handwriting is very important if letters are to be turned out to look well. A neat, clear running hand is to be esteemed. The writing should be perfectly straight and should look evenly balanced on the paper. We have seen many indifferent writers in respect to handwriting, who would turn out very neat looking letters; and the secret is that their writing was perfectly straight, with equal margins of nearly half-an-inch left with regularity on each side of the paper, and the same equal margins were kept at the top and bottom of the page, so that a page of writing looked as if it were written within an even border, like a page of printed type in a book. Some clerks run their writing to the very edge of the paper both at the sides and bottom, and however good their handwriting may be, their letters look slovenly and unbalanced. The capacity to write well is not acquired by all men, but anyone by ordinary care can, if he likes, cover a sheet of paper evenly in the manner we have described.

It was our good fortune some five or six years ago to purchase an old book published at Bristol, and entitled "*Smith's Principles of Epistolary and Mercantile Writing, containing easy and infallible rules for facilitating the attainment of a free expeditious running hand and enabling the most stiff or illegible writer to execute with fluency, uniformity and elegance.*" The book, price ten shillings and sixpence, has no date, but appears to have been printed and published possibly fifty or sixty years ago. It is within our recollection that when a small boy at Clifton, Bristol, our two sisters and a brother were taught this system with great advantage. Whether the teacher was the clever inventive Smith or some disciple of his, we cannot remember. We are prepared to sing praises for Smith, whether he was the original inventor or only a copyist, for by his aid we have greatly improved the handwriting of many junior clerks, and also of two sons, supplementing their school instruction. We believe that it is Smith's system which is practised by writing masters in many of our large cities, who undertake to make bad writers produce copper-plate writing in twelve lessons. No doubt approximately they succeed, and we hope the day may come when Smith's system will be found in every school, and will supersede the absurd mode of teaching writing in schools at the present day.

We have made an abstract of Smith's little book, giving the material parts, as follows:—

FIRST LESSON.—The first line shows the formation of the letter *m* in open direction, and should be well practised for the purpose of acquiring freedom of motion in the arm. At the beginning of the line the elbow should be placed very near the side; in this position the whole hand and arm should move together, so that they lie in the same direction at the end of the line as at its commencement. The lines which run nearly horizontal, are formed by the movement of the arm; as the diagonal lines are by that of the thumb.

It will be easily perceived that the pen returns to the centre of the two first diagonal lines before the movement of the arm is renewed; the last terminates in an acute angle.

The second line shows the formation and right mode of joining the letter *o*. This letter is partly formed by taking the pen lightly back on the horizontal line, and terminated by a small loop turned to the left.

The third line, which shows the formation of the *c*, requires particular attention; for as it is the principle on which the letters *a*, *d*, *g*, and *q*, are formed, the general legibility of the hand will, in a great measure, depend on the correct formation of this letter. The line commences horizontally, and the *c* is begun by a sudden depression of the pen, which is then taken back on the line in the same manner as the *o*, and finished by an angle similar to that which terminates the *m*.

The fourth line shows the formation of the *a*, the principle difficulty of which will have been conquered before its commencement, by proper attention to the preceding line; it is entirely formed by attaching an *i* to the right side of the *c* without taking off the pen. The faint lines show the formation of the letters *d*, *g*, and *q*; they are each finished without lifting the pen.

The most important point to be observed in making these letters, with respect to their dependence on the *c*, is to be particularly careful in joining the diagonal line, so as to prevent the appearance of two letters where one is intended; a defect which is too frequent in the common mode of running-hand writing.

SECOND LESSON.—When a sufficient share of attention to the first lesson has rendered the movement of the arm perfectly easy, the pupil may proceed to practice the fifth line, which contains the remainder of the short letters, or those which come between two lines.

The *e* is formed in the usual manner, and joined to a succeeding letter by a retrograde movement of the pen round the bottom of the terminating line.

The letters *u* and *e* are so simple in their formation, that there is no need of direction respecting them, except that the loop of the *e* should be distinctly formed; but the practitioner will find that clearness in this and similar letters, will greatly depend on the right holding of the pen.

The old method of forming the *x*, as it is extremely difficult to perform without taking off the pen, is quite inadmissible in running-hand. The first part of this letter should nearly resemble that of an *m* rather turned to the left at the bottom; the pupil will from this beginning find it easy to return to the centre of the down stroke, and finish the *x* by forming a similar character to the first, but inverted.

I have given the letter *r* in two forms; the first, which begins like the *z*, cannot be placed with any degree of facility after those letters that finish at the top, but will be found most convenient when it precedes an *s*.

In forming the second, the pen must return to the top of the diagonal line, and finish by a distinct loop turned to the left.

It will be observed that the termination of the second *r*, *o*, *v*, *w*, and *b*, are alike; and all equally serviceable in preventing a slovenly habit. When the hand is written with despatch, these loops are not distinctly visible; but as the practice of them in the first lessons confirms a habit of turning the pen to the left where it is requisite, it will be found an effectual method for preventing that illegibility which arises from the custom of joining letters without giving them a distinct termination.

When the pupil has acquired a thorough knowledge of all the above letters individually, I should recommend the practice of a number of words that contain no other letters than those with which he is already acquainted: first, he should write words of five or six letters wide enough to occupy a whole line; such as *mourn*, *roman*, *recur*, "*reason*," *raisin*, *cannon*, *summer*, *murmur*, *rumour*, *remain*, *common*, &c.; and afterwards gradually contract the hand by writing words of much greater length in the same space; such as "*murmurer*," *reasoner*, *uncommon*, *seminaries*, *arminianism*, *midsummer*, "*inconvenience*," &c. Such words as *communication*, *commendation*, *commemoration*, *denomination*, *determination*, *circumstances*, &c., may likewise be practised in this lesson.

THIRD LESSON.—The object next in importance to a free movement of the arm, is a perfect use of the fingers and thumb; the latter being as essential in the formation of the up and down strokes, as the former is in uniting the letters and promoting despatch: a plentiful practice of the word "*nun*," as it is given in specimen, will tend greatly to promote this desirable flexibility. When the pupil is capable of copying this word accurately he will have acquired the principle on which all the long letters are formed; and as uniformity of hand depends much on the regular sloping of these letters, great pains should be taken in practising them agreeably to the order in which they are arranged, giving a proper share of attention to the letters that constitute each class—(1), those that come between three lines above, as the *b*, *h*, and *l*; (2), those that come between three lines below, as the *g*, *j*, *y*, and *q*; (3), those which come between four lines (being carried above and below the centre lines which contain the short letters or body of the writing), as the *s*, *p*, and *f*. The *q*, from having the

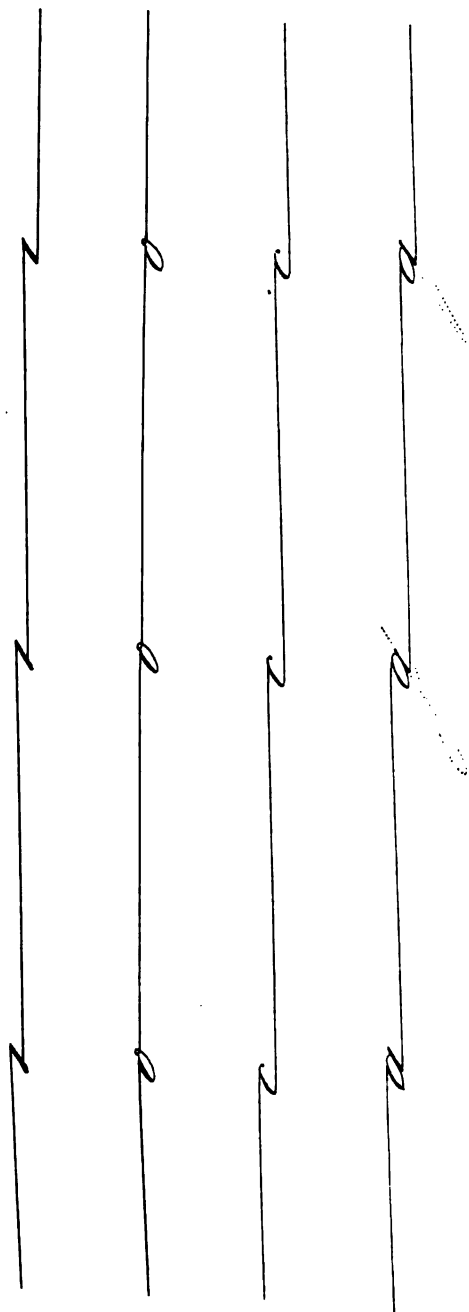
same termination as the *f*, is included in this class, though in other respects it more properly belongs to the first.

After having practised all the long letters in their respective classes, it will be found expedient to write a number of those words in which they abound most; as, "*thousand, jury, month, formidably, thinkingly, monopoly, thy, opportunity, fully, frightfulness, phthisick, engaging, foppishly,*" &c.

I should recommend a particularly attentive imitation of the *th*, as the right mode of joining those letters forms a striking feature in correct running hand.

FOURTH LESSON.—The fourth lesson consists of a general application of all the preceding rules, from a due attention to which the pupil will find himself capable of correctly imitating the alphabetical examples.

LESSON I.



LESSON 2.


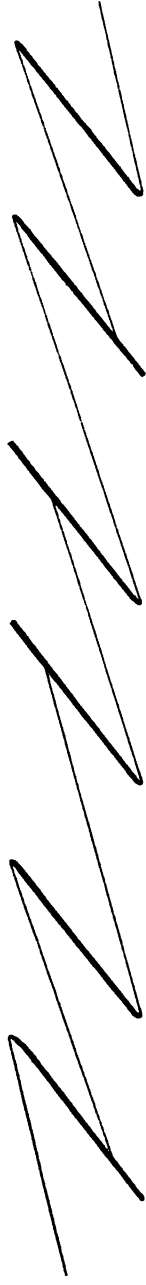
Handwritten signature

rrraa

Handwritten signature

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LESSON 3.



thousand. jury. month.

For a day. Thinking.

monopoly. My opportunity set.

LESSON 4.

Abundance, like want, ruins many.

Derive wisdom from experience.

Generosity is often well rewarded.

Quarrels should ever be avoided.

Sincerity and candour are rare.

The sincere are always esteemed.

PRÉCIS OR DIGESTS.—The art of abridgment or précis writing, which is cultivated in the civil service, is almost unknown in the railway service. It is true that railway correspondence is not long-winded and more practical than Government despatches, yet précis writing will be found of service even to the railway officer. Candidates for Civil Service appointments have to pass an examination as to their efficiency in précis writing, and a similar regulation is no less desirable in respect to the railway service. A good précis writer must have acquired an analysing, dissecting and consolidating capacity of mind. Thus the acquirement of the art affords mental exercise of the very first rank. It is a process of "boiling down" a quantity of ornamental and extraneous composition into the naked facts—a reduction of superfluity into lucid intelligible matter—the extraction of the real issues from what is often a conglomeration of nonsense. Our readers may at some time have met with a summary of the evidence of a parliamentary committee, where a huge report of the evidence of many witnesses is reduced to something like a readable book. This was the work of a précis writer—if the Civil Service Commissioners had not cultivated this kind of labour, such summaries could not be produced.

Précis writing applies in railway business (1), in reducing to more familiar language, acts of parliament relating to the making, working and controlling of railways; (2), in making agreements that are written in legal phraseology intelligible to non-legal minds, and persons who have to carry on the work; (3), in reducing to compact form the substance of three or four thousand minutes of a traffic conference, covering a period of perhaps twenty or thirty years—this latter is where précis writing has never within our knowledge been brought to bear, but it is a field offering a wide scope for good work; (4), summaries and abridgments of long tedious cases of correspondence would be of great service if clerks could be got who understood précis writing. To make a précis of a case would prove a good test that the clerk actually knew the real facts and was well made up in the case. Those long tedious cases that sometimes drag on for weeks, or perhaps months, often for want of the facts being properly bottomed, would be avoided. The fear of having to write a précis of an old case would act as a stimulant with clerks, and perhaps old correspondence cases might thus be reduced to a minimum.

We cannot here enter into the art of précis writing, but must refer our readers to the Rev. Jno. Hunter's little manual on "Précis or Digests," published by Longman, Green & Co., which can be procured for about two shillings.

SHORTHAND APPLIED TO CORRESPONDENCE.—The great essential in railway business is speed. The most insignificant piece of detail has a characteristic in concert with an express train. All detail must more or less partake of the leading principle. Speed in connection with railways is synonymous with quantity—great results in little time. As an engine is required to accomplish a certain distance in a certain time, so the necessities of the service require that a railway employee shall perform a given amount of work in a fixed time. All appliances

calculated to abridge labour, and by so doing, give increased speed, are invaluable adjuncts to the railway system. Any individual possessed of natural ability or special qualifications enabling him to get through more than the ordinary average quantity of work, is certain to be more valued and more successful than others less qualified. His labour being of a superior quality is worth increased remuneration, because it cannot be readily obtained. Excellence claims and obtains precedence. One of the leading features of the present age is to achieve great results "at once," and at the least possible labour and expense—hence, go-a-headism and the attempts to shorten everything either by steam or improved organisation. The most important details of railway management have to be arranged through correspondence which gives rise to an immense amount of letter writing. Mixed up with much of this correspondence is a considerable amount of policy. Hence the wording of letters is often very important, and therefore much better restricted to a responsible station agent or an experienced chief clerk. Here Isaac Pitman's phonetic shorthand is a most valuable adjunct. It obviates the necessity of a station agent, with respect to a large portion of the correspondence, trusting to the phraseology of an ordinary correspondent clerk. It admits of a man of acute perception and quick dictation disposing of possibly thirty or forty letters in a couple of hours, or almost a sufficient number to keep a clerk employed the whole day in transcribing from shorthand to longhand writing. This is an enormous advantage over the old system, because it strengthens the control power and admits of a greater portion of the correspondence being carried on in an improved manner by the agent.

Apart from business, the shorthand is a most gratifying acquisition to its possessor, more particularly if he delights in the collection of words, phrases, lectures or sermons. He can readily compile thoughts, experiences, or the results of observation. He can correspond at the least possible expenditure of time and labour with other shorthand writers, and exchange information. His power of speed and quantity places him far above his fellows unacquainted with the art. His position is almost as advanced as the man who can write longhand, compared with the man who is quite ignorant of the art of writing.

We recommend all railway clerks to learn shorthand and to keep it up. The day may not be far distant when a portion of railway correspondence will be carried on in shorthand, and then those who may be too old to acquire the art will have to give place to juniors experienced in it. Speed is an essential principle that will force its own extension in spite of any conservatism. If station correspondence were carried on in shorthand it could be done in half the present time, and would effect a saving in the number of clerks now necessary. The acquirement of the art requires perseverance and patience. It taxes memory and individuality. There are several degrees and stages in shorthand which have to be worked through and thoroughly mastered before the higher steps can be taken. The mistake many beginners fall into is, that they attempt at first to take the higher degrees and abbreviations, without being well grounded in the intermediate portion, when they of course stumble, and the result is they give up the study in despair.

RUDIMENTS OF PITMAN'S SHORTHAND.

(PHONOGRAPHY.)

By SIR ISAAC PITMAN.

Sir Isaac Pitman and Sons, Ltd., 1, Amen Corner, London, E.C., and Bath and New York, have kindly furnished the following Rudiments of Pitman's Shorthand. When the student has mastered the rudiments, he should obtain the complete hand-book of the art, namely "Pitman's Shorthand Instructor," and when he has attained proficiency in the use of the system, he will find the "Phonographic Railway Phrase Book" of great service in dealing with railway correspondence. For perfecting the student in reading shorthand fluently and writing it with rapidity, a number of works have been issued, printed wholly or in part in shorthand, to meet the requirements of various classes of students. A Complete Catalogue of Pitman's Shorthand and other works may be obtained post-free from the publishers, on application at the address given above.

In the year 1837, or three years before the introduction of that universal public blessing, the Penny Post, a new Art was introduced, the art of PHONOGRAPHY; a mode of writing by shorthand signs that exactly represent the sounds of speech. The art of longhand writing professes to accomplish the same object, but in a very much longer time, and in a round-about, irrational, and illogical way, by a series of signs and endless repetitions of signs which, as compared with the brief, flowing, and geometrical characters of Phonography, may be likened to the lumbering stage-coach and the famous "Flying Dutchman."

Shorthand keeps pace with speech and thought, while longhand toils after them in vain. Of what immense benefit to the writer, then, must shorthand be, since, instead of the mere fragments of a thought, he is able to record his conceptions as fast as his mind conceives them, with a vigor, a freshness, and a wholeness impossible by other means.

The art of Phonography may be easily acquired. Experience has shown that its principles are mastered by most learners in a very short space of time, and that an hour's daily practice in reading and writing, continued for about a month, will generally ensure tolerable facility in using it.

In commencing the practice of shorthand, the student is particularly cautioned against attempting to write with rapidity at the outset. When his hand has become accustomed to trace the simple geometrical forms of the phonographic characters with correctness and elegance, he will find no difficulty in writing them quickly; but if he lets his anxiety to write fast, overcome his resolution to write well, he will not only be longer in attaining real swiftness, but will always have to lament the illegibility of his writing. Phonography is at all times best written on ruled paper, but plain paper may be used. The learner should always write upon paper ruled with single lines, and he may use either a quill or a steel pen, or a pencil. A pencil is recommended for exercises, and a pen for ordinary writing and reporting. As, however, the reporter is sometimes so situated that he cannot use a pen, he should accustom himself, at times, to report with a pencil. The pen or pencil should be held as for longhand writing, and the elbow be turned out so that the letter *h* can be struck with ease.

The following table exhibits the consonants of the shorthand alphabet:—

TABLE OF CONSONANTS.					
	<i>Letter.</i>	<i>Sign.</i>	<i>Name.</i>	<i>As in</i>	
<i>Explodents.</i>	P	↘	pee	rope	post
	B	↘	bee	robe	boast
	T	—	tee	fate	tip
	D	|	dee	fade	dip
	CH	/	chay	etch	chest
	J	/	jay	edge	jest
	K	—	kay	leek	cane
<i>Continuants.</i>	G	—	gay	league	gain
	F	↘	ef	safe	fat
	V	↘	vee	save	vat
	TH	(	ith	wreath	thigh
	TH	(	thee	wreath	thy
	S	)	ess	hiss	scal
	Z	)	zee	his	scal
<i>Nasals.</i>	SH	↘	ish	vicious	she
	ZH	↘	zhee	vision	je (Fr.)
	M	(	em	seem	met
<i>Liquids.</i>	N	(	en	seen	net
	NG	(	ing	long	
<i>Aspirate.</i>	L	↘ up	el	fall	light
	R	↘ up	ar, ray	for	right
<i>Aspirate.</i>	W	✓ up	way		wet
	Y	✓ up	yay		yet
<i>Aspirate.</i>	H	↘ up	aitch		high

CONSONANTS.

With the exception of a *straight line in the 4th position*, every right-line and curve employed in Phonography, is written in the direction of one of the lines in Diagram No. 1:—



all straight lines and curves in direction 2 and the curves in direction 4 being inclined midway between a perpendicular and a horizontal line. The consonants of the Phonographic Alphabet may be remembered by observing that, except the downward *r*, *w*, and *k*, letters made by a given organ are written in the same direction. (See Diagram No. 2.)

1. LIPS:—*p*, *b*; *f*, *v*. 2. TEETH:—*t*, *d*; *th*, *dh*; *s*, *z*. 3. PALATE:—*ch*, *j*; *sh*, *zh*; *l*, *dr*, upward *r*, *wl*, *y*. 4. THROAT:—*k*, *g*; *kw*, *gw*; and NOSE, *m*, *n*, *ng*. (See the double consonants *tr*, *wr*, *kw*, *gw*, below.)

The consonants should be made about one-sixth of an inch in length, as in these pages. This size is best adapted for the learner, and insures accuracy and neatness in the writing. When he can write with ease, the size may be reduced to one-eighth of an inch, as in the shorthand specimen at the end of this article. Particular attention should be paid to the forms of the curved thick letters; if they are made heavy throughout, they present a clumsy appearance; they should be thickened in the *middle* only, and taper off at each end.

Perpendicular and sloping letters are written from top to bottom, and horizontal letters from left to right; thus,

| *t*, \ *p*, (*th*, / *r*, — *k*, ~ *m*, ~ *n*.

The letter *l*, when standing alone, is written upward, and *sh* downward; *l*, and *sh*, joined to other consonants, may be written either upward or downward, as may be convenient; thus,

⌈ *lt*, ⌈ *lm*, ⌋ *skn*, ⌋ *skn*.

All the consonants in a word should be written without lifting the pen, the second letter beginning where the first ends, and so on; as, ⌈ *kt*, ⌈ *th*, ⌈ *nt*, ⌋ *fn*, ⌋ *fn*, ⌈ *trt*. There should always be an angle between *f* and *n*, *l* upward and *m*, and all similar combinations. In tracing the consonants slowly, learners may make an angle between *p* and *n*, *b* and *n*, *t*, *n*; *d*, *n*; *th*, *n*; *m*, *p*; *m*, *b*; *m*, *t*; *m*, *d*; *m*, *s*; upward *r* and *m*, and similar combinations; but the advanced writer should strike these letters without an angle.









When a straight consonant is repeated, there should be no break between the two strokes; thus, — *kk*. When a curved consonant is repeated, repeat the curve; thus, ~ *mm*, ~ *mm*.

Single consonants, and combinations of consonants similar to those above, rest upon the line; thus, ⌈ *catch*, not ⌋ *catch*. When two descending letters are joined, the first should rest on the line, and the second descend below it; thus,











⌋ *sch*, ⌋ *sch*, ⌋ *pt*, ⌋ *ft*.

As the straight line in direction 4, Diagram 1, may be written either up or down, it is made to represent two letters, namely, *ck* when written downward, and *r* when written upward; this additional sign being given to *r* for convenience and speed in writing. To diminish the risk of *ck* and *r* being mistaken for each other, when standing alone, *ck* is made to slope 60 degrees from the horizontal, and *r* 30. This line naturally takes these slopes when struck by the hand downward and upward respectively. The upward *r* is written as in the following examples:—

⌈ *tr*, ⌈ *rt*, ⌋ *pr*, ⌋ *rp*, ~ *mr*, ~ *ntr*.

When joined to other letters, *ch* and *r* are distinguished by the direction of the stroke; thus,  *chr*,  *rch*,  *kr*,  *kch*,  *tr*,  *tch*,  *mr*,  *mch*.

S and *s*, on account of their frequent occurrence, are furnished with an additional character, particularly convenient for joining; thus *o* which represents either *s* or *s*. When the *s* circle is joined to straight letters, it is written on the right-hand side of perpendicular and upward sloping letters, and on the corresponding or upper side of horizontal and upward sloping letters, or by a motion contrary to that of the hands of a clock; thus,





 *chs*,  *ts*,  *ps*,  *ks*,  *rs*;
 *sch*,  *st*,  *sp*,  *sk*,  *sr*.

When joined to curved letters, it is written inside the curve; thus,







 *fs*,  *gf*,  *ss*,  *ms*,  *ns*,  *msm*.

Between two straight lines, it is written on the outside of the angle; thus,

 *kst*,  *tsd*,  *pst*,  *chsp*.

When the circle *s* is joined to *l* only, *l* is written upward; thus,  *ls*,  *sh*, and when *s* is joined to *sk* only, *sk* is written downward; thus,  *shs*,  *ssk*.

There are six simple long vowels in the English language, viz.,

AH,	EH,	EE;	AW,	OH,	OO;
					
as in	alma,	ale,	eel;	all,	ope, food.

The first three are represented by a dot, and the last three by a short stroke or dash, written at right angles to the consonant. They are here written to the letter *t*, to show their respective places; namely, at the beginning, middle, and end of a consonant. ALL the vowels should be pronounced as single sounds; that is, *ah* as in *alma*, and not as *a-eitch*; *eh* (a) as in *ape*; *ee* as in *eel*; *aw* as *awe*, not as *a-double-you*; *oh* as *owe*; *oo* as in *oose*.

When a vowel is placed on the left-hand side of a perpendicular or sloping consonant, it is read *before* the consonant; and when placed on the right-hand side, it is read *after* the consonant. A vowel placed above a horizontal letter, is read *before* the consonant, and when written under, is read *after* the consonant. This, it may be observed, is the way in which we read all European languages; namely, from left to right, and from top to bottom. As we have shown in the above six long vowels, their signs are written at the side of the consonant, in three places—at the beginning, middle, and end; the beginning of the consonant, whether written upward or downward, being the place of the first vowel-sign *ah*. The letter *l*, for instance, when written upward, has the vowels' places reckoned from the bottom upward, and when joined to another consonant and written downward, its vowels' places are reckoned downward.

Vowels placed at the beginning of a consonant, as *ah* and *aw*, are called *first-place vowels*; vowels written in the middle, *second-place vowels*; and those at the end, *third-place vowels*.

The vowel points and strokes must be written at a little distance from the consonants to which they are placed. If allowed to touch, except in a few cases which will be mentioned hereafter, they would occasion mistakes.

Besides the six long vowels already explained, there are in the English language six short vowels, as heard in the words

pat, *pet*, *pit*; *not*, *nut*, *foot*.

In producing these sounds the positions of the vocal organs are nearly the same as in uttering the long vowels in

palm, *pate*, *peat*; *nought*, *note*, *food*;

the chief difference being, that the former vowels are more rapidly pronounced. The slight difference in the quality of sound in these pairs is most evident in *pat, palm; note, sut*. The short vowels are represented by dots and strokes written in the same places as for the long ones, but made lighter, to indicate their brief character; thus,

ĭ,	ē,	ī;	ŏ,	ē,	ōō;
·	·	·	·	·	·
as in	am,	ell,	ill,	on,	up, foot.

These short vowels should not be called—No. 1, “short *eh*,” No. 2, “short *ee*,” No. 3, “short *i*, (*eye*),” etc.; but—No. 1, “short *ah*,” No. 2, “short *eh*,” No. 3, “short *er*,” etc. But it is more convenient to affix the letter *i* to each of these short vowels, and call them severally *at, et, it, ot, ut, ŏti*.

The double vowels heard in the words *ice, owl, boy*, are represented by small angular marks, *ai* in *due* by a curve, and the triphthong *wi*, as heard in *wife*, by a small right angle; thus,—

i, v | *ice*; *ow, ʌ* | *owl*; *oi, ʹ* | *boy*; *u, ˘* | *due*; *wi, ˚* | *wide*.

I, ow, and *u* are close diphthongs, accented on the second element; and *oi* an open diphthong, accented on the first element. Each is pronounced as one syllable. *U, i* as in “*due, tune*,” is one of a series of diphthongs commencing with *i* or *y*. (See the next paragraph.) The signs for *i, ow*, and *wi* may be written in ANY place, with respect to a consonant: *oi* is written in the FIRST place.

A series of diphthongs, whose first element is *i* or *y*, may be heard in the words “*India, alien*, (*ai* does not occur, but the shorthand sign for it may be employed in such cases as “*tarrying, hurrying*,” where these letters make two syllables,) *idiot, folio, value (valico)*.” Another series is formed with *oo* or *w*. Systematic signs for these diphthongs are provided in the following manner:—

<i>wah</i> c | > <i>waw</i>	<i>yah</i> v | ^ <i>yaw</i>
<i>wah</i> c | > <i>woh</i>	<i>yah</i> v | ^ <i>yoh</i>
<i>wee</i> c | > <i>woo</i>	<i>yee</i> v | ^ <i>yoo</i>

These signs, like those for the simple vowels, are written heavy for long vowels, and light for short ones. They are seldom employed at the commencement of a word. It should be noticed that these small curved marks are written in the same positions as are the signs for the six pure vowels already learned. The *w* signs represent the form of the mouth in pronouncing *w* or *oo*, thus *o*; and the *y* signs represent the shape of the mouth in pronouncing *y* or *ee*, thus *o*.

The second of these *w* signs, slightly leaning, is joined to the upward *i* to make the double consonant *wi*; thus, *wi*.

The combination *wh*, in *when, what*, represents a single sound. It is a breath-*w*, and the common *w* may be called a vocal *wh*; just as *f* may be considered a breath-*v*, and *v* a vocal-*f*. The breath-*w* (*wh*) is represented by enlarging the hook of *w*; thus, *wh*, as in *where*. When *wh* precedes *l*, the hook of *w* is enlarged; thus, *whl*, as in *whale*.

The shorthand signs for the diphthongs, and the double letters of the *w* and *y* series, are always written in the same direction; that is, they do not accommodate themselves to the consonants to which they may be written, as do the signs for the simple vowels *aw, o, oo*.

The aspirate occurs in English only when preceding a vowel. It is sometimes expressed by a small dot prefixed to the vowel sign; thus, *happy*, *had*, *uphill*.

The consonant form for this letter is generally more convenient; it is written either *ʹ* downward, or *˘* upward. The downward letter is used in words that contain no other consonant, as *hay*, *hoe*. When *h* is joined to some other consonant, use that form which will most easily join with the following letter; as, *ham*, *honey*. When the stroke *h* is written finally or medially, it must be so joined that the upward *h* cannot be read as *er*, nor the downward *h* as *sch*; thus, *not* *abhor*, *not* *Mahomet*, *cohere*, *unholy*.





Because of the deficiencies of the English alphabet, and the anphonetic character of our orthography, the spelling of a word is seldom a guide to its pronunciation. To write any given word, therefore, phonographically, its several *sounds* must first be ascertained: the phonographic letters which represent them should then be written. The practice of Phonography and the reading of shorthand, will improve the student's pronunciation, and train his ear to discriminate differences in orthoepy.







The circle *s* is generally used in preference to the stroke *s*; thus,




 *sake*,  *soap*,  *suck*,  *piece*,  *task*.

In such words, the vowel is placed and read to the stroke-consonant, and not to the circle *s*, to which no vowel can be placed or read. Observe particularly that the circle *s*, at the beginning of a word, is always read *FIRST*; and at the end of a word it is always read *LAST*. It may be thickened for *z*, and made double-sized for *ss*; thus,—







 *pass*,  *pass*,  *passes*,  *cause*,  *causes*.






The stroke *s* or *z* is used when a word contains no other consonant; as  *ice*,  *see*,  *ease*; also when a word begins with a vowel followed by *s*; as  *ask*.

The stroke *s* is also used (1) when initial *s* is followed by two vowels; as  *science*; (2) and generally as the first letter of a word beginning with *s*, vowel, *s*; as  *society*,  *Sisera*; (3) also when final *s* is followed by a vowel; as  *mercy*,  *noisy*; and (4) when final *s* is preceded by two vowels; as  *chaos*.





The stroke *s* is used in ALL words that begin with the sound of *s*; as,  *zeal*,  *Zion*,  *Xerxes*.

When a vowel comes *between two consonants*, it is possible to write it either after the first or before the second; thus,

 or  *cap*,  or  *cape*,  or  *keep*.

Care must be taken not to write a vowel sign in an *angle* between two letters; as  which might be read either *kee-p* or *k-ape*:  for *nick-nack*,  for *almanac*, are not so clear as  *nick-nack*,  *almanac*. The three following rules will guide to the vocalization of all MONOSYLLABLES.

FIRST-PLACE VOWELS are written *after the first consonant*; as,

 not  *pack*;  not  *mant*.



SECOND-PLACE VOWELS are written *after the first consonant when LONG*, and *before the second when SHORT*: thus,





 *gate*,  *get*,  *cope*,  *cup*.

It is thus known whether a second-place vowel is long or short, independently of the heaviness or lightness of the vowel-sign.

THIRD-PLACE VOWELS are written *before the second consonant*; as,

 not  *tick*;  not  *poor*.

In the vocalization of words of more than one syllable, the vowel should be placed to the consonant to which it belongs in dividing the word into syllables, when it is equally convenient, and when there is no danger of its being misread for some other vowel; thus  is more legible than  *accumulate*.

When the diphthongs *ī*, *ā*, *ow*, are written by themselves for the words *I*, *how*, *ī* is placed ABOVE the line, and *ā* *ow* ON the line. When either of these diphthongs commences a word, the first place is the most convenient; as  *eyes*,  *ounce*; in other cases they are generally more easily written in the third place; as,  *opite*,  *ow*.






Five series of double consonants are formed from the single consonants, on the principles shown in the following table :—







SINGLE AND DOUBLE CONSONANTS.

Name.	As in	L hook.	R hook.	N hook.	P and V hook.	Half Length	
pee P rope	↖	pl ↖	pr ↖	pn ↖	pf ↖	pt ↖	
bee B robe	↖	bl ↖	br ↖	bn ↖	bf ↖	bd ↖	
tee T fate	|	tl |	tr |	tn |	tf |	tt |	
dee D fade	|	dl |	dr |	dn |	df |	dd |	
chay CH etch	/	chl /	chr /	chn /	chf /	cht /	
jay J edge	/	jl /	jr /	jn /	jf /	jd /	
kay K look	—	kl —	kr —	kn —	kf —	kt —	
gay G league	—	gl —	gr —	gn —	gf —	gd —	
ef F safe	↘	fl ↘	fr ↘	fn ↘	...	ft ↘	
vee V save	↘	vl ↘	vr ↘	vn ↘	...	vd ↘	
ith TH wreath	(	.....	thr (	thn (	...	tht (
thee TH wreath	(	.....	thr (	thn (	...	thd (
ess S hiss	o )	.....	...	sn)	...	st)
zee Z his	o )	.....	...	zn)	...	zd)
ish SH vicious	↘	shl ↘ <small>up, down</small>	shr ↘ <small>down</small>	shn ↘ <small>down up</small>	...	sht ↘	
zhee ZH vision	↘	.....	zhr ↘	zhn ↘	...	zhd ↘
em M seem	↘	ml ↘	mr ↘	mn ↘	...	{ mt md }	
en N seen	↘	nl ↘	nr ↘	nn ↘	...	{ nt nd }	
ing NG long	↘	.....	ng ↘	...	...	...
el L fall	↘	.....	...	ln ↘ <small>up, down</small>	...	{ lt ld } <small>down</small>
ar R air	↘ <small>up</small>	.....	...	rn ↘ <small>up</small>	rf ↘	rt ↘
ray R raw	↘	.....	...	rn ↘	...	rd ↘
way W wet	↘	.....	...	wn ↘	wf ↘	wt ↘
yay Y yet	↘	.....	...	yn ↘	yf ↘	yt ↘
aitch H high	↘	.....	...	hn ↘	hf ↘	ht ↘
whay	away	gway	mp	mp	ler	wel	whel
wh	kw	gw	m _p	m _p r	lr	wl	whl
↘	↘	↘	↘	↘	down	↘ up	↘ up







The following is a tabular view of the long and short vowels and diphthongs:—

VOWELS AND DIPHTHONGS.													
Long.							Short.						
ah	eh	ee	aw	ō	ōō		ă	ĕ	ĭ	ĕ	ŭ	ö	
alma,	ale,	eel;	all,	epe,	feed.		am,	ell,	ül;	olive,	up,	feet.	
ī	ī	isle,	ow	owl	ū	tane,	wī	wife.	oi	oī	oī	oī	
The signs for i, ow, and wī may be written in ANY position.													
THE VOWELS COMBINED WITH W AND Y.													
wă	wĕ	wī	wō	wū	wö		yă	yĕ	yī	yō	yū	yö	
The signs for these two series of diphthongs are written light for short sounds, and heavy for long sounds.													









As the stroke *s* hooked, thus  is not required for *sr* (the circle *s* joined to the downward *r*  being equally serviceable), and as the downward *r*, hooked for *rr*  would be almost useless, the two forms  are given to *fr*, *thr*, and their heavy strokes  to *vr*, *thr*, as EXTRA SIGNS.



The downward *k* may be reduced to a tick before *m*, *l*, downward *r*, stroke *s*, *z*, or a hook; as  *km* (this outline is sufficient for the word *whom* = *kōm*),  *kl*,  *kr*,  *ks*,  *kz*,  *Hebrew*. This tick *k* cannot be used before *m* or *l*, when a FIRST-PLACE vowel follows *k*, because such outlines could not be clearly vocalised.









All the letters at the bottom of the Table of Single and Double Consonants may be hooked at the end for *s*. The seven straight strokes may be hooked for *f*. *Ms* may be hooked initially for *mspr*, and finally for *s*: and after being hooked it may be halved for *t* or *d*.



A letter with an initial or final hook (or both an initial and final hook) may be written half-length for the expression of either *t* or *d*; thus,  *klt* or *kld*,  *wt* or *wd*,  *ms* or *md*,  (up) *up* (down, when joined) *lnt* or *lnd*,  *rat* or *rad*,  *wnt* or *wnd*.

The simple articulations *p*, *b*, *t*, *d*, etc., are often closely united with the liquids *l* and *r*, forming a kind of consonant diphthong, and pronounced by a single effort of the organs of speech; as in *plough*, *brow*, *try*, *drink*, etc. The natural way of expressing these combinations in writing would undoubtedly be by some marked and uniform modification of the *simple* letters. It is effected thus:—







 *p*, with *l*, becomes  *pl*;  *p*, with *r*, becomes  *pr*;
 *t*, with *l*, becomes  *tl*;  *t*, with *r*, becomes  *tr*.

As a curve cannot receive a hook on both sides of the stroke (for such characters as  could not be written both accurately and quickly), and as the *r* compounds are much more frequent than the *l* compounds, a hook prefixed to a curve always adds *r* to the primary letter (except in the case of  *w*, explained above), thus—

 *th*, with *r*, becomes  *thr*;  *f*, with *r*, becomes  *fr*.
 *n*, with *r*, becomes  *nr*;  *m*, with *r*, becomes  *mr*.

Shl, *shn*, *shnt*, and *rt*, upward, and *ln*, *lnt*, downward, must never stand ALONE, because they would then be read as other letters; thus,  *shn*, struck upward, becomes *shr* (which it represents when standing ALONE) if supposed to be struck downward; and  *ln*, written downwards, and standing alone, is *wl*.

From the *pr* series of double consonants, a series of treble consonants is formed by making the hook into a circle; thus,

 *spr*,  *str*,  *skr*;  *sbr*,  *sdr*,  *agr*.

This principle also gives *skw* from *kw*; as *square*.

These treble consonants are used initially, thus,

straw, *strike*, *scrape*, *spray*, *supreme*.

There is no danger of *spr*, *str*, *skr*, being read as *sp*, *st*, *sk*, because in the latter case the circle *s* is always written on the right-hand or upper side; thus,

sp, *st*, *sk*.

Except when *spr*, *str*, *skr*, occur initially, the circle *s* and the hook of the double letter must be distinctly expressed; thus,

express, *ester*, *pastry*, *registry*, *disclose*,
excursive, *destroy*, *prosper*.

When one of the *l* or *r* hooked letters follows the circle *s*, and a perfect hook cannot be formed, an imperfect one will suffice; thus, *explain*; or it may be omitted; thus, *subside* for *subscribe*, *superbide* for *superscribe*.

After *t* and *d*, the circle may be turned to the right in order to form the treble consonants *skr*, *sgr*; thus,

describe, *disagree*, *disgrace*.

In the combinations *dek*, *dsg*, the circle is written on the other side; thus, *desk*, *diagnose*.

S is joined to a consonant of the *pl* series, and to *w*, thus,

supply, *settle*, *saddle*, *wickle*, *suffer*, *sway*.

Occasionally it is more convenient to write the single consonants than to use a double letter of the *pl* and *pr* series; thus, *is* is the best form for *sensible*.

N following a STRAIGHT letter is expressed by a small final hook on the LEFT-HAND side of a perpendicular stroke, and on the corresponding side of any other straight letter. (see preceding Table.); thus,

tone, *train*, *pain*, *cane*, *turn*.

By making the hook into a circle, *s* or *z* is added; thus,

tones, *trains*, *pains*, *canes*, *turns*.

This circle on the left means *ns* only when it occurs at the end of a word; thus, *is* is not *pns-m* but *p-s-m*. When the *s* or *z* circle is final after a straight letter, it is written on the other side: thus, *is*, *ps*, *ks*.

The *ns* circle is made double-size for *nses*; thus, *expenses*.

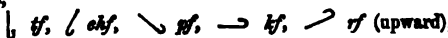
A small hook at the end of a curve always adds *n*; thus,

shine, *feign*, *loan*, *known*, *mine*.

S or *z* is added to the *n* hook following a curve, by making a small imperfect circle inside the hook; thus, *mines*.

A vowel after a letter with the *n* hook is to be read BEFORE the *n*; thus, *men*. To express a vowel AFTER *n*, the stroke *n* must be used; thus, *many*, *tiny*. As the stroke *n* (and also the stroke *s*, and frequently *t* and *d*), at the end of a word, thus indicates a final vowel, the vowel may be omitted in swift writing; thus, *pen*, *penny*, *plenty*, *fan*, *Fanny*, *fans*, *fancy*.

f or *v*, when following a STRAIGHT letter, is expressed by a final hook on the RIGHT-HAND side of a perpendicular stroke, and on the corresponding side of any other straight letter; thus,

 *hf*, *ahf*, *sh*, *hf*, *vf* (upward), *hf*;
as in *tough*, *David*, *cough*, *lithograph*, *surf*.

There is no *f* or *v* hook to CURVED letters. The hook may be thickened for *v* if necessary. The stroke *f* after a straight letter indicates a final vowel, as *coffee*.

The terminations *-tion* (*shon*), *-sion* (*shon*), *-sian* (*shan*), etc., are expressed by a large final hook; thus, *option*, *fashion*, *mission*, *version*, *Persian*, *nations*.

When the *-tion* hook follows a CURVE, it is written on the INNER side, like the final *s* hook. It may be written on EITHER side of a STRAIGHT LINE, under certain restrictions, as follows:—

At the end of a straight letter beginning with a hook or circle, or springing from a curve, the *-tion* hook, when final, is written on the OPPOSITE side, that the straightness of the letter may be preserved; thus, *oppression*, *correction*, *collection*, *circulation*, *recreation*, *station*, *section*, *secretion*, *affection*, *selection*.

In other cases, *-tion* when final, and following a straight letter, is written on the side opposite to that on which the vowel (or accented vowel if more than one) occurs; thus, *passion*, *caution*, *action*, *rogation*, *diction*, *operation*. This rule will show when the vowel, if omitted, is to be read before *-tion*, and when before the previous consonant. After *t* or *d*, not preceded by a hook, circle, or loop, the *-tion* hook is always written on the right; as *addition*. When two vowels occur before *-tion*, write *sh* and the hook *s*; thus, *valuation*.

When *shon* or *shon* follows the circle *s*, it is expressed by continuing the circle *s* to the other side of the consonant; thus, *decision*, *possession*, *position*, *transition*, *compensation*. In this case, the hook *-tion* may be vocalised for a second or third-place vowel only, by writing the vowel-sign outside the back hook for a second-place vowel, and inside it for a third-place vowel, as in the above examples. This hook is used only when a vowel comes between *s* and *-tion*, not in such words as *question*.

The circle *s* may be added to this hook, and it may be used medially; thus, *positions*, *positional*, *transitional*.

The *s*, *f*, and *-tion* hooks may be used medially; as, *vanish*, *perfection*, *national*; and the *-tion* hook may be thickened for *shon*; thus, *artesian*, *derision*, *vision*.







By halving any consonant, whether single, double, or treble, *t* or *d* is added, according as the letter is thin or thick; *t* being generally added when the letter is *thin*, and *d* when it is *thick*; thus, *talk*, *talked*, *bake*, *baked*, *rip*, *ripped*; *live*, *lived*, *rub*, *rubbed*, *beg*, *begged*, *trot*, *bride*.

A vowel BEFORE a half-sized consonant is read before both letters; as, *east*, *oased*, *oft*, *ached*, *act*.

A vowel AFTER a half-sized consonant is read next to the PRIMARY single, double, or treble letter; thus,






coughed, *point*, *laint*, *bread*, *street*.

M, *n*, *l*, and the downward *r* are shortened for the addition of *t*, and these shortened strokes, when thickened, represent *mt*, *nd*, *ld*, *rd*; thus,





 *tempt*,  *deemed*,  *sent*,  *send*,  *old*,  *appeared*.

The only consonants that do not admit of being halved for the addition of *t* or *d* are *ng*, *mp*, and *lr*, but *mp*, when HOOKED FINALLY, may be halved, as *impnd*.

Lt, when standing alone, is written upward; in other cases, either upward or downward: *ld* is always written downward; thus,

 *lute*,  *melt*,  *pelt*,  *knelt*,  *fold*.

D is added to both light and heavy letters, for the past tense; as,

 *matted*,  *peopled*,  *ordered*,  *measured*.

To express *d* or *v* by a final hook, instead of *t* or *f*, the hook is thickened; thus, *attained*, *pained*, *lend*, *strife*, *strive*. The thickening of the *n*, *f*, and *-tion* hooks is not necessary except when precision of sound is required.












A half-sized letter may represent either an added *t* or *d*; as, *mind*, *font*, *fond*, *upward*, *downward*, *forward*, (*wd* being used as a contraction for *ward*), *rapid*, *repeated*, *alphabet*, *between*.

A full-sized and a half-sized consonant, or two half-sized consonants, or a full-length or half-length and a double-length consonant, or THREE consonants in the same direction, should not be joined unless they FORM AN ANGLE at the point of union, or show the junction by a DIFFERENCE OF THICKNESS, as *chord*, *ford*, *attitude*, because it would be doubtful whether such combinations were meant for a

single letter, or a full-sized and a half-sized letter, or two full-sized letters. For instance, *pr* and *pt*, *tr* and *tt*, *d* and *tt*, *nt* and *mt*, *m* and *nt* are not allowable combinations: these double consonants should either be resolved into their simple letters, or the pen should be taken off; thus, *propped*, *treated*, *bribed*, *judged*, *practicable*, *intimate*, *not*, *discriminator*, *wearer*.

The half-length consonants are named — *ket*, *gent*, *art*, *elt*, *emt*, *emd*, *will*, etc.

St (and sometimes *sd* when final,) is written by a loop about half as long as a consonant, on the same side as the circle *s*; as,

 *state*,  *stop*,  *stock*,  *steam*,  *still*,
 *toast*,  *kissed*,  *fast*,  *last*,  *rest*,  *disposed*.

This loop is used chiefly as initial or final, but it may be employed medially when the loop can be distinctly formed; as in

testify, *justify*, *investigation*.




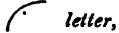




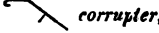



















A wider loop, two-thirds of the length of a consonant, represents *str*; thus, *faster*, *muster*, *minister*. The use of the *str* loop INITIALLY and MEDIALY is not recommended: *strap* cannot be halved for the past tense: write *strapped*.

These loops may be combined with the initial *pr* and the final *pn* series of straight letters; thus,



stoker, *against*, *cleansed*, *punster*, *stopper*.

S may be added to a final loop or to the large *ss* circle by continuing the stroke of the loop or circle; thus,






crusts, *lists*, *dusters*, *punsters*, *exercises*.


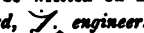
When a letter is written twice its usual length, it expresses the addition of *tr*, *dr*, or *thr*; but the irregulars *mp* and *ng*, when doubled, become *mper* or *mber*, and *ng-ker* or *ng-ger*; thus,  *father*,  *neither*,  *mother*,
 *letter*,  *order*,  *distemper*,  *longer*,  *conductor*,
 *corrupter*,  *numerator*,  *overcirculator*,  *slander*,
 *inventor*,  *thunder*,  *printer*,  *splendor*,  *counters*. This abbreviating principle does not apply to an INITIAL STRAIGHT STROKE except it ends with the hook *s* or circle *ss*; thus, it does not apply to  *p*,  *pl*,  *pr*,  *sp*,  *spr*,  *w*, etc. A double-length STRAIGHT letter, ending with a hook, has thus two meanings,  *p-pr* and *p-ntr*;  *k-kn* and *k-ntr*. When used in the former sense, as for *pippin*, *Tenton*, *jejeune*, *cocoon*, etc., it should be vocalized. All words of this class are of rare occurrence, while the other class, *ponder*, *tender*, *gender*, *kinder*, *hinder*, *winter*, *sender*, *wonder*, etc., are common words, and may generally be left unvocalized. The double-length *l* (*ltr*) represents so many useful words ending in *tr*—*letter*, *lighter*, etc.—that it may be confined to this representation;  *leader*,  *louder*,  *leather*, etc., being written thus.

A double-length letter is vocalized like a half-length one. This abbreviating principle should not be adopted by the learner until he has gained some degree of fluency in writing.




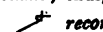

One of the long vowels *ah*, *eh*, *ee*, may be expressed BETWEEN the two letters of one of the *pl*, *pr* series of consonants, by a small circle BEFORE or ABOVE the consonant; thus,  *dear*,  *careless*.

The SHORT vowels *ä*, *ë*, *ÿ*, are written by a small circle placed AFTER or UNDER the consonant; as,

 *Charles*,  *term*,  *tell*,  *till*,  *garden*.

When the position of the consonants renders it inconvenient to observe this rule, the circle may be written on EITHER side, for either a LONG or a SHORT vowel; thus,  *regard*,  *engineer*.



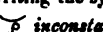
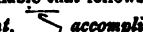
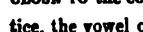



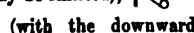

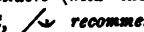






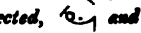
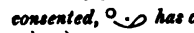

A stroke vowel is struck THROUGH the consonant; thus,

 *court*,  *cold*,  *school*,  *record*,  *soldier*.

When an initial hook or circle would interfere with a first-place vowel, or a final hook or circle with a third-place vowel, the vowel-sign may be written at the BEGINNING or END of the consonant; as

 *dormouse*,  *figuration*,  *figures*.












The following prefixes are written near the remaining part of the word, but in reporting (except the dot *con*.) it is frequently allowable to join them, to save time.

CON or COM is expressed by a light dot, written at the beginning of the word; thus,  *contain*,  *comply*. When preceded by a consonant, either in the same or the preceding word, *con* or *com* is understood by writing the syllable that follows, UNDER or CLOSE TO the consonant that precedes; thus,  *inconstant*,  *accomplish* (in practice, the vowel of *ac* may be omitted),  *decompose*,  *discompose*,  *discontent*,  *irreconcilable* (with the downward *r*),  *reconcilable* (upward *r*),  *misconduct*,  *recommend*,  *uncommon*,  *unconfined*,  *you will comply*,  *I am content*,  *and contrive*,  *and connected*,  *and consented*,  *has commenced*,  *and is contained*. (See the signs for *and*, *has*, *is*, below.)





















INTER, INTRO  *aa*,  *interview*,  *introduction*.









MAGNA, MAGNI  *aa*,  *magnanimous*,  *magnify*.



SELF  *aa*,  *selfsame*;  *self-control*.







The prefix *IN* or *UN* may be expressed before the treble consonants *sp*, *str*, *skr*, and before *h*, by a back hook; thus,  *inspiration*,  *instruct*,  *unstrung*,  *unscrew*,  *inscription*,  *inherit*,  *inhuman*. This abbreviation cannot safely be used in *insolvent*, *insoluble*, *unholy*, etc., because  *insolvent*,  *unholy*, would not be sufficiently distinct from  *solvent*,  *holy*.




Write the following affixes near the preceding part of the word:




Ing is expressed by a light dot at the end of a word; thus,  *eating*; or by the alphabetic ; as  *writing*,  *parting*,  *evening*. *Ings* is written by *^*, or  or by the alphabetic form ; as  *mornings*,  *engravings*,  *doings*,  *sayings*. The stroke *ing* is most convenient after the circle *s*, as  *facing*, also after *b*, *d*, upward *r*, *l*, (up or down,) *w*, *y*, upward *h*, *th*, stroke *s*, *sh*, *n*; as  *being*,  *reading*,  *following*,  *failing*,  *annoying*; and whenever it may be joined to the preceding letter by a sharp and easily-written angle; as  *printing*. After *p*, *t*, *ch*, *j*, *k*, *g*, *f*, *v*, and the downward *r*, the dot *ing* is best; as  *supping*,  *laughing*.






-ALITY, -ILITY, -ARITY, etc. Any consonant when disjoined from that which precedes it, expresses thereby the addition of *ality* or *arity*, or any other termination of similar sound; thus,  *coequality*,  *formality*,  *penalty*,  *probability*,  *barbarity*,  *peculiarity*,  *popularity*,  *regularity*.

LY as  *heavenly*. This affix does not interfere with *-ality*. It is generally more convenient to join the *l*; as  *goodly*.

MENTAL, MENTALITY as  *instrumental* or *instrumentality*;  *fundamental*,  *instrumentalities*. (*M*, the first letter of the termination *ment*, may sometimes be omitted; thus,  *imprisonment*,  *commencement*,  *resentment*.)

SELF  as  *thyself*. *SELVES*, as  *themselves*.

SHIP  as  *stewardship*. Sometimes *sh*, *p*, can be written faster, if joined, than a separate *sh*; thus,  *friendship*.

A logogram (or word-letter, may be used either as a prefix or affix; thus,  *Lordship*,  *afternoon*,  *undertake*,  *hereafter*,  *indifferent*.

Phonography may be written either *IN FULL* or *IN BRIEF*. Full Phonography signifies the expression of every vowel and consonant in a word by its shorthand letter. In Abbreviated Phonography every word of frequent occurrence is represented by one or more of its prominent letters. These words are called *GRAMMALOGUES*, or *LETTER-WORDS*, and the letters that represent them are called *LOGOGRAMS*, or *WORD-LETTERS*. Thus, each of the following words in line 1 is represented by the under-written shorthand letter in line 2, which letter forms part of the word when written in full, as in line 3:

- | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|
| 1. | <i>of.</i> | <i>to</i> | <i>for,</i> | <i>be,</i> | <i>are,</i> | <i>have,</i> | <i>which,</i> | <i>from.</i> |
| 2. |  |  |  |  |  |  |  |  |
| 3. |  |  |  |  |  |  |  |  |

There are two Styles of Abbreviated Phonography; the First is used in correspondence, and for general purposes; and the Second is employed by reporters. The First Style is generally called "Phonography," and the Second Style, "Reporting." These two Styles differ chiefly in the number of grammalogues employed. In the First Style 150 are used. (See the Table below.) Logograms that are written *above* the line (except horizontal and vowel logograms,) or *through* the line, cannot be employed on unruled paper. These words should, in that case, have their remaining consonants or vowels inserted.

GRAMMALOGUES

ALPHABETICALLY ARRANGED.

A, an	1	dear	1	have
above	1	deliver-ed-y	-	he
according	--	differen ^t	)	him
account	--	difficult	)	himself
advantage	1	do	)	how
after	1	Doctor	^	however
all	1	done	1	I, eye
and (up)	1	down	1	if
any	1	during	1	importan ^t
are	1	each	1	improve- ^{ment}
as, has	1	equal-ly	1	in
at	1	ever-y	1	is, his
awe	1	first	1	it
be	1	for	1	language
because	1	from	1	large
been	1	general	1	Lord
beyond	1	gentleman	1	may
but	1	gentlemen	1	me, my
by	1	give-n	1	member
call	1	go, ago	1	might
can	1	God	1	more
cannot	1	good	1	Mr, mere
care	1	great	1	much
come	1	had	1	myself
could	1	hand	1	nature
	1	happy	1	

GRAMMAMOLOGUES ALPHABETICALLY ARRANGED.

near	short	upon
no	should (up)	us
nor	so	use (<i>verb</i>)
not	spirit	use (<i>noun</i>)
number-ed	thank-ed	usual
O! oh! owe	that	very
of	the	was
on	their, there	we
one	them	what
opinion	therefore	when
opportunity	these	whether
or	thing	which
other	think	while
our	this	who
out	those	whose
over	though	why
particular	through	will
Phonography	to	with
pleasure	to be	without
principle	told	word
put	toward	would
quite	true	year
remark-ed	truth	yet
remember-ed	two, too	you
see	under	your
several	up	
shall, shalt		

S may be added to a logogram to mark the plural number or the possessive case of a noun, or the third person singular of a verb; as — *good*, *goods*, *Lord*, *Lords*, *comes*, *comes*.

In general, the positions of the grammalogues, ABOVE, ON, and THROUGH the line, are determined by their vowels; and in the case of a word of more than one syllable, by its accented vowel. The positions of words, as determined by their vowels, are:— For perpendicular and sloping strokes, 1st position, *ah*, *aw*, *i*, *oi*, ABOVE the line; 2nd position, *ē*, *ō*, ON the line; 3rd position, *ē*, *oo*, *ow*, *ā*, THROUGH the line.

Vowel logograms, and horizontal and half-sized consonants, have but TWO positions:—

- 1, *ah*, *aw*, *i*, *oi*, ABOVE the line.
- 2, *eh*, *oh*, *ee*, *oo*, *ā*, *ow*, ON the line.

All grammalogues are written IN POSITION in accordance with the above rules, and are thus easily remembered, except,—

IRREGULAR GRAMMALOGUES.—CLASS 1.—Words of frequent occurrence, written ON THE LINE for the sake of convenience. They are: *advantage*, *are*, *be*, *been*, *dear*, *deliver*, *do*, *for*, *from*, *have*, *if*, *it*, *Lord*, *Phonography*, *shall*, *think*, *upon*, *usual*, *was*, *we*, *which*, *will*, *your*.

CLASS 2.—Words which in their proper position would clash with some other grammalogues. They are:—*any*, *go* (and *ago*), *in*, *me*, *more*, *much*, *number*, *O*, *over*, *particular*, *this*, *those*, *though*, *truth*, *with*.

Seeing that in the Phonographic Alphabet *s* and *r* have duplicate forms, that *sh* and *l* may be written either upward or downward, that *so* and *y* have both vowel and consonant forms, that *h* may be written by its consonant form (up or down), or by a joined tick, or a dot; also that many groups of consonants may be expressed either by their alphabetic forms or by abbreviations, it is evident that a large number of words may be written in more than one way. For any given word the writer should choose that form which is most easily and rapidly written, and is at the same time capable of being clearly vocalized. The briefest outline to the eye is not always the most expeditious to the hand. The student will insensibly acquire a knowledge of the best forms by practice and observation, and especially by reading some book printed in Phonography.


























The following rules for writing the upward and downward *r*, and for writing *l* up or down, affect a large number of words.












INITIAL *R*.—When *r* is the first consonant in a word, the upward *r* is written if a vowel follows, and the downward *r* is written if a vowel precedes; thus, *ray*, *rock*, *run*, *rose*, *rise*, *rule*; *air*, *earn*, *airs*, *arm*, *earl*, *error*. This rule should not be applied when it would produce an awkward outline, as in *arid-ity*, *arithmetic*, *artichoke*, *article*, *earth*, *oracle*, *origin-al*, *ornament*, *orthodox*; and a few others.







FINAL *R*.—The same rule applies to final *r* WHEN ONLY ONE STROKE PRECEDES; as, *tare*, *tory*; *fear*, *fury*; *pare*, *perry*; *car*, *carry*; *jeer*, *jury*; and sometimes when two strokes precede; as *repair*. In *midsummer*, *Shakspeare*, *testator*, etc., where more than one stroke precedes the final *r*, the rule would be useless.











It applies also when a hook, circle or loop, is attached to *r*; as, *Sir*, *sorry*, *star*, *story*, *stern*, *Styrian*, *source*, *sorrow*, *pierce*, *Paris*. The upward *r* is always written after an up stroke; as in *rare*, *wore*, *where*, *superior*, *emperor*.








INITIAL *L*.—The rule applies to initial *l* when followed by either of the horizontal consonants *k*, *g*, *m*, *n*, *ng*; as, *like*, *lament*, *Lena*, *long*; *alike*, *element*, *Ellen*, *along*. This rule does not apply when horizontal letters, hooked initially, follow *l*; thus, *allegro*, *Ulmer*; nor in *illness*, *alliance*, &c., which must agree with *ill*, *ally*.





FINAL L, LR.—The rule applies to final *l* when preceded by *f* (or *v*), upward *r*, upward *k*, stroke *w* and *y*, or *sk*; as,  *fool*,  *fellow*,  *vale*,  *valley*,  *roll*,  *relay*,  *skill*,  *sickly*. In other cases write the *l* upward; as  *bill*,  *tail*,  *chill*,  *coal*,  *assail*,  *lull*,  *mill*. *L* after *s* is generally written downward; as  *annual*,  *annually*,  *snail*. Also write *l* downward when following a straight letter, if two vowels come between; as  *bowel*,  *trial*. The double consonant  *lr* is preferable to  *lr* after *f*, upward *r*, *w*, *sk*, *sqw* (*skw*), *s*, and the circle *s* preceded by another consonant; as  *Fowler*,  *kneeler*,  *peninsular*.











FR, THR, ETC.—The two forms for *fr*, *vr*, *thr*, *thr*, should be used thus:—In the case of a word that contains no other consonant stroke,     should be employed when a vowel follows; as,  *fry*,  *throw*, and the other series when a vowel, or the prefix *com*, *con*, precedes; as,  *offer*,  *ether*,  *comfort*. These two classes of words will thus be more readily deciphered in unvocalized Phonography, or Reporting. In other cases, that is, when another stroke comes before or after, select that form of *fr*, *thr* which makes the most convenient outline. If both forms are equally convenient,   should be preferred, as agreeing with the *pr* series.





JOINED VOWELS.—At the beginning of a word, a vowel may be joined to a consonant in the following cases: *aw* before *l* (upward); *waw*, *wɔ*, before *k*, *r* (up), *m*, *tr*, *chr*, and *shr*; and the diphthong *i* before *t*, *sh*, *s*, *th*, *p*, *f*, *r* (down); thus,  *alter*,  *alteration*,  *walk*,  *war*,  *water*,  *item*.

A vowel may also be joined at the end of a word in such cases as  *about*,  *due*,  *new*,  *continue*. The vowel *aw* (*all*) may be joined in  *Almighty*,  *almost*,  *already*,  *although*,  *always*,  *all-wise*.

JOINED VOWEL SIGN FOR W.—The small *w* may be advantageously joined to *k*, *m*, and *l*; as,  *wake*,  *woke*,  *wag*,  *woman*,  *wall*,  *William*,  *Wilson*. Before other consonants it is better to write the alphabetic *w*.

When *P* occurs between *m* and *t*, *T* between *s* and another consonant, *K* between *ng* and *sh*, or *ng* and *t*, or *G* between *ng* and *sh*, the *p*, *t*, *k*, or *g* may be omitted in Phonography; as, *P*.  *stamped* (from  *stamp*),  *cramped*,  *thumped*.












T.  *mostly*,  *restless*,  *postpone*; also in  *postage stamps*,  *post-man*,  *testament*,  *New Testament*,  *testimony*,  *destitute*,  *Phonetic Institute*, etc.

K.  *anxious*,  *sanction*,  *distinct*. *G*.  *distinguish*.

OF THE.—The connective phrase “of the,” is intimated by writing the words between which it occurs NEAR TO EACH OTHER, thus showing that the one is *of the* other; thus,

 *love of the beautiful*,  *plan of the work*.

The prefix *con* or *com* cannot be mistaken, in practice, for this mode of expressing *of the*.

TICK THE.—*The*, the most frequent word in the English language, may be expressed by a short slanting stroke  joined to the preceding word, and generally written downward; thus,  *in the*,  *for the*,  *by the*,  *of the*,  *with the*,  *to the*; but when more convenient, it is written upward; thus,  *at the*,  *before the*,  *on the*. The first stroke of *on the* is made sloping to keep the sign distinct from  *I*. The tick *the* never BEGINS a phrase.

In longhand, swift writers join all the letters of a word together, and sometimes write several words without lifting the pen. In Phonography also several words may often be united. This practice, called Phraseography, gives great assistance to the writer in following a rapid speaker. The following examples show how other phraseograms may be formed. Words marked (*) are written above the line.

LIST OF PHRASEOGRAMS.

and have	is not	this is
and the *	it is	to be
as well as*	it is not	we are
could not	it is said	we have not
for this reason	it should be	we have seen
had not *	it would be	when he was
do not *	may be	which cannot
has not *	of course *	you can
he may	should be	you cannot
I am *	should do	you may
I do	so that	you must
I have	they will	you must not
I will *	that is *	you will do

Stops should be written in the usual way, except the Period, for which a small cross is used; thus, , ; : x The Hyphen is written thus, |, or two-fold; the Dash thus, —; ¶ A smile; used in correspondence, but not in printing. The parenthesis stroke should be made a little larger than a double-length upright consonant.

ACCENT may be shown by writing a small cross close to the vowel of the accented syllable; thus, a arrows, a arose, a renew.

EMPHASIS is marked as in longhand, by drawing one, two, or more, lines underneath; a single line under a single word must be made wave-like, thus ~, to distinguish it from —. In preparing manuscript for the press, a single line thus drawn underneath, (wavy for a single word, and straight for more than one,) signifies *italic*; two lines (which need not be waved) SMALL CAPITALS, and three lines LARGE CAPITALS. For *ITALIC CAPITALS* draw three lines, and write "Italic" close by.

AN INITIAL CAPITAL is marked by two short lines under the word; thus, The Times newspaper, Abel.

FIGURES are written as usual, or the words may be expressed in Phonography. When the figures one and six are written by themselves, they should be formed thus, 1, 6, that they may not be mistaken for shorthand characters.

NOMINAL CONSONANT.—Vowels may be written without consonants by using 1 1 as outlines having no special values; thus 1 a, 1 ek, 1 i, 1 ak-i (yes). The stroke-vowels may be struck horizontally THROUGH the nominal consonant, as 1 a, 1 e, 1 u. The initials of Christian names should be written in longhand.

SPECIMEN.

"... 2 6 7 . 2 4 , 2 , 2
 2 4 ' 2 4 2 2 . 2 2 2 2
 2 2 2 , 2 . 2 2 ' 2 , 2 , 2 , 2
 2 2 2 2 . 2 2 2 ' 2 , 2 2 2 2 .
 2 , 2 2 2 2 2 2 2 2 . 2 2 2
 2 2 2 2 2 2 2 2 ' 2 2 2 2 2 2 / 2
 2 2 2 , ' 2 2 . 2 2 2 2 2 2 2 2 2
 2 , 2 . 2 2 2 2 ' 2 , 2 2 2 2
 2 2 2 2 2 , 2 2 2 2 2 2 2 , /
 2 2 2 2 2 2 2 2 2 2 . 2 2 2 2
 2 2 2 2 ; 2 2 2 2 , 2 2 , 2 2 2
 2 . 2 2 2 2 2 2 2 2 2 2 , 2
 2 2 . 2 2 2 , 2 2 2 2 2 2"

KEY.—"A practical acquaintance with this art is highly favorable to the improvement of the mind, invigorating all its faculties and drawing forth all its resources. The close attention requisite in following the voice of the speaker, induces habits of patience, perseverance, and watchfulness, which will gradually extend themselves to other pursuits and avocations, and at length inure the writer to exercise them on every occasion in life. When writing in public, it will also be absolutely necessary to distinguish and adhere to the train of thought which runs through the discourse, and to observe the modes of its connection. This will naturally have a tendency to endue the mind with quickness of apprehension, and will impart a habitual readiness and distinctness of perception, as well as a methodical simplicity of arrangement, which cannot fail to conduce greatly to mental superiority. The judgment will be strengthened, and the taste refined; and the practitioner will, by degrees, become habituated to seize the original and leading parts of a discourse or harangue, and to reject whatever is common-place, trivial, or uninteresting."

CORRESPONDENCE—GENERAL.—Correspondence is one of the most important branches of the work relating to the management of railways. It is the door by which failures first enter and become apparent. In nearly all cases where a station is badly managed, it will be found that the correspondence is loosely conducted, usually incidental to the increased strain put upon it. Decay within, is indicated with certainty when the correspondence is conducted in a slovenly manner. It has been said, "Tell me acts of a man and I will tell you generally his character." Apply this to the correspondence of a station, and an accurate opinion may be easily formed of the station agent and his management of the station. Correspondence is the chief lever by which an agent should work his station efficiently, because all errors and shortcomings crop up and are evolved in the course of the correspondence. It may be likened to the face and hands of a clock, that indicate the action of the covered-up machinery. The method of working railway traffic in detail is to a great extent a system of scrutinizing checks. If an agent, besides using his own perception, will listen to the criticism of his neighbours he may often hear things about his station worth knowing. Fault-finders are useful persons in their way, especially when honest, and should be endured with patience when the smallest modicum of truth may be picked out of their lamentations. *By industriously seeking for wrong and effectually rectifying it by organisation the nearest approximation to perfection may be attained.* Some men with large perceptive faculties have a special aptitude for seeing "blots," and thus, when truthful critics, they become useful attendants to the organiser. Sink the motive of the fault-finder in gratitude for the service he renders in discovering what has escaped your own ken. If an agent follows this rule, the man who discovers the deficiencies of his organisation is unwittingly his best friend. It is hardly necessary to take him into confidence, for finding that he is doing good service, he may then, with the perverseness of human nature, cease his role as a critic.

The extent of railway station correspondence incidental to the working of traffic is enormous, and anything tending to reduce it would produce a great saving. There are two kinds of correspondence—(1), that which is occasioned by the public and originating from errors made by traders; (2), that which is occasioned by the railway staff, where the originating cause is within the control of the company's servants. It would be difficult to ascertain throughout the country the proportion one class bears to the other, but it may be assumed that the latter will average three-fourths or seventy-five per cent. of the former.

Correspondence is, as it were, the "regulator" of the organisation for amending anything that goes wrong, when that wrong has to be rectified from a distance. It exposes, adjusts and regulates defects and flaws in the working of the business. The question is whether or not this "regulator" has not greatly exceeded its original design, even in excess of the necessities arising from a growing traffic. If the committal of a wrong can be *too easily adjusted*, there may be a decrease of wholesome restraint. When the correction of an error is too easy, there is a liability that less carefulness will be exercised for its avoid-

ance in the future. If an easy channel is provided for the amendment and clearance of avoidable errors, and this channel is left unwatched, it is likely to widen in the course of time. The growth of a useful adjunct to a large system of organisation is always liable to degenerate into an abuse, and yet so slowly and imperceptibly as to escape the observation of all concerned, even to the extent of being deemed an indispensable appendage.

Suppose it is assumed there are eight thousand railway stations, and that on the average twenty-five memoranda letters are written daily at each, this will give two hundred thousand letters *per day*, which have to be registered, copied, and afterwards carried by goods and passenger trains. Estimate a clerk's work to average the writing of forty letters per day, it will thus take five thousand clerks to carry on this correspondence. Deducting twenty-five per cent. for correspondence occasioned by traders' mistakes that are beyond the companies' control, it leaves (not to mention letter-copying lads) three thousand seven hundred and fifty clerks engaged upon the adjustment of errors within the control of the railway staff. This may be termed the regulating or adjustment staff, which, compared with the aggregate staff, may not seem so very disproportionate, although the produce of their labour amounts to a formidable figure. It is not alone the question of the writing of such a large number of memoranda letters that has to be considered, but we must take into conjunction therewith the incidental labour to guards in sorting and delivering, also the registering, copying, and stationery, and last, though not least, the inconvenience suffered by the public.

Correspondence must therefore be accepted as the channel by which errors are brought to the surface. As far as practical an agent should open all his letters and glance over them so as to pick out serious complaints and "repeats," and either deal with these himself or place them in the hands of a trustworthy clerk to reference up the facts. If the extent of the work renders it necessary to depute the opening of letters to a clerk, it should be confided to one who can be trusted not to conceal or suppress fault-finding letters. The practice of allowing any or every clerk to open letters, particularly post letters, is much to be condemned. Some agents allow clerks to open important letters and write and sign replies, perhaps without knowing of the matters in question. There are agents who devote their whole attention to outside work, harassing themselves with a yardsman's duty in shunting waggons and trains, and leaving all the correspondence to a clerk. An agent who attends closely to the building up of the organisation from the inside, working outwardly, generally works his station better than the one who makes outside duties his principal consideration, and works from the outside, inwardly, to the office work. It must not be forgotten, however, that *at times of pressure*, or in reorganising, it is necessary for an agent to perform outside work, even to the marshalling a train, and always to take care that it is done.

It is quite as important that an agent should *sign every letter that leaves his station* as that he should see every letter that arrives; if not, he

is quite in the dark as to each day's transactions, and his clerks may write all sorts of stupid nonsense with his name appended. An agent should allow no one to use his name when avoidable, because (1), he grants a license for paper squabbles; (2), he has no check at the moment, as to how long letters may have been nursed before being answered; (3), he has no check that proper answers are given or cases properly treated. It is sometimes convenient for the clerks who write the letters to take them to the agent and read them aloud and then the agent signs them. The letters should be signed every hour or two throughout the day and not allowed to accumulate unsigned until late in the afternoon. This often leads to the post letters missing the night's post, and is hard upon the juniors who are kept unnecessarily late registering, copying and despatching the letters.

It is often the best plan to require correspondent clerks to pin together the letters received and the answers that are written. An agent can then see how any case stands, and *by observing* the date of each letter received, he can see if it has been duly answered. Where an agent signs one or two hundred letters a day, it is impossible to go into the facts of every case, and much, consequently, has to be accepted unquestioned. While the clerks know the letters pass under the eye of the agent, they do not know which case he may or may not question, and while they are thus kept on the *qui vive* they will, as a rule, do their best.

When a letter pointing out an error which has a bad appearance comes before an agent, let him investigate the matter to the bottom until he ascertains the cause, and endeavours to invent some plan that will prevent the like recurring, except from carelessness, wilfulness, or inadvertence. Let the plan organised be such that, in the future, the whole blame will rest upon some one individual without leaving room for argument or dispute. This means the fixing of individual responsibility, which is a leading feature in organisation. Encircle men with individual responsibility, defining where one man's acts begin and those of another man end, so that when errors occur the man in fault cannot escape conviction. By the agency of individual responsibility one man's action is made to urge forward the action of other men, and so infuse vigour into the organisation as a whole.

Promptness is imperative in correspondence, for letter writing in business means something to be done or something that has been left undone. An agent should lay it down as law, and carry it out as nearly as possible, that no letter received up to a certain hour in the afternoon shall remain unanswered that same day. If all stations carried out this rule, then a reply to a letter would be received at the inquiring station on the second day after the inquiry was sent. That is, the letter sent on the Monday and arriving on the Tuesday would be answered the same day, and the answer received on the Wednesday morning. Few stations in ordinary working can be depended upon to give the reply on the day of arrival to all letters; the percentage varies, perhaps, at different stations from thirty, fifty and seventy-five per cent.

It is more frequently the morning of the fourth day than the third before the reply arrives. In this respect a reformation is sadly wanted.

Every correspondent clerk or agent, as a rule, should clear off all his letters every day, and so do the day's work in the day. There are of course exceptions, where too much work is put upon one man or where particulars of a case cannot be obtained, but as a rule the practice should be adhered to. The letters have to be answered and the work is equal, whether it is done the day of receipt or the next day, and the credit of promptness may as well be earned by doing Monday's work on Monday, rather than on Tuesday or Wednesday. A shrewd agent is not to be deceived by a correspondent clerk leaving his work in arrear for a day or two, to make believe he is overburdened with work; neither need a correspondent clerk think he will have more work allotted to him because he keeps his correspondence up to date day by day.

Conciseness and brevity with clearness, save labour to the writer and reader. Some agents and clerks introduce much extraneous matter into their composition, so that it is vexatious to have to wade through their letters. They seem not to be able to grasp the material points of a case, but diverge into a gossiping narrative. They should conceive themselves to be the reader, that is the person having to act upon the facts represented. A man who writes in this way is not a practical man of action or decision, neither can he be accustomed to act as a judge, or to decide, for then he would only give such particulars as are necessary to form a judgment upon the matter in question. There may, however, be too much brevity, and some men go to the extreme, which is equally as bad as the other. A concise explanation of facts bearing upon the point at issue, and covering the case in its entirety, is what is required. When addressing managers, they as practical men do not want a rambling statement, containing everything but the essential facts, for and against, but simply a good précis of the facts.

The sooner a letter or inquiry can be decisively replied to the better. Do what is asked at once, if it is reasonable, and if unreasonable, refuse at the time decisively. Some correspondent clerks will bandy letters backwards and forwards for weeks between station and station merely to put off, for the moment, looking for an old book or the trouble of calling upon a trader, or thoroughly going to the bottom of the case. This creates work for all concerned in the correspondence, even for the procrastinator himself. The matter must be settled some time, and it may as well be done at once with credit to the station and in a way that involves the least labour. The adage with some old railway men is, that letters kept for some time answer themselves, and this may be true in a sense, but the reputation which clings to that man who adopts such a plan is not to be envied.

Every letter received should be retained as a record and a reply (of which a copy should be kept) sent in answer. On no account should answers be sent on a turned up corner of the letter received. This practice with station correspondence is slovenly, and much to be condemned. If adopted generally, no system of correspondence could be carried out, for there would be no record of either the letters received or replies given.

Report books in outside offices or checkers' boxes are very useful for entering matters about which letters are to be written. It is only necessary for the clerks or checkers making the entries to give the condensed heads or substance of the subjects. In this way everything comes under the correspondent clerk's notice, as the letters from this report book should be written in the correspondence office where all correspondence should be centralised.

The despatching and receiving of letters and invoices should be arranged so as to cause as little delay as possible. It is a good plan to have on the passenger platform a letter box with two divisions, one for letters inwards and the other for letters outwards. This prevents letters being thrown about, and leads to a general understanding that there is an appointed place where letters must be deposited, and from whence some person is responsible to give the outward letters to the guards, and deliver the inwards letters in accordance with their addresses. If the goods department is under different management to the passenger department, this plan is the more necessary. In this case the goods messenger lad will call for the inward letters, which he should do on the arrival of every through train, so that no delay takes place by letters remaining an undue time in the box after arrival at the passenger station. The carriage of letters is greatly facilitated by their being clearly and legibly addressed. *All letters to foreign lines should have the route written outside, as well as the name of the company on whose line the station is situated; and this educates the lads in a knowledge of junctions and positions of towns.* It is wrong to allow this to be neglected under the idea that the guards will know. They do not always know the entire geography of the country, neither can it be expected that they should know the route to every place. Guards on through trains have little time allowed to perform the work devolving upon them, therefore the labour of sorting letters should be made as light and easy as possible for them.

CORRESPONDENCE OFFICE.—At small stations where all the inside work is performed in one or two offices, the amount of correspondence does not usually require a separate office. Probably at such stations there may be no correspondent clerk, and the agent deals with all the letters himself. Sometimes the two or three clerks at such stations will each take the letters that refer to their own work and answer them. We entertain the strongest possible objection to this distribution of letters among the clerks, and think, that as a practice it should be discountenanced, seeing that it introduces the worst possible organisation. It is yielding up to others the main lever of control which should be held by the agent alone. It is like destroying the steam gauge that indicates the pressure of steam per square inch upon the boiler. It is like destroying the compass, and thus losing all knowledge as to how the ship's head is directed, whether north, south, east or west. The skilful handling of the correspondence is where the executive control has scope to display its excellence. It is through the agency of the correspondence that the "blots" in the working are hit and corrected. It is therefore, in our estimation, suicidal to distribute the

letters among those persons who make the "blots," thus leaving them to condone, explain away, or conceal their carelessness, negligence or inadvertence. Whether it be a station agent with one clerk or a station agent with twenty clerks, the executive control of the correspondence should be organised as the "mastership" section of the work round which everything else should revolve.

It is, in a sense, fashionable these days to extol "inspection" as a means to find out "blots." Inspection is no doubt most necessary to cover ground not covered by the correspondence; but with a right system of correspondence, twenty "blots" may be unfolded by the agency of the correspondence to the one discovered by the travelling inspection process.

We do not mean that the mechanical labour of the correspondence is to be performed by the station agent; but in delegating the mechanical portion of the work to others, the control power too often slides away at the same time, which is a mistake. By mechanical labour, we mean the registering, referencing up the facts and writing. An agent in a general way, at a moderate sized station, should have the mechanical portion performed ready to his hand, and then he can apply his brain power to deal with each particular letter or case on its merits. He should acquire the most essential habit of dictating letters for his clerks to take down *verbatim*, and thus free himself from the waste of time incidental to the writing process which properly belongs to a clerk. At a station of any size there are so many things that require looking after, that it is really a waste of time for an agent to sit down for hours engaged in the mechanical process of writing letters. Probably the next generation of railway men may be all shorthand writers, and then it will be a very simple matter to turn up the corner of a letter and write the verbatim reply in shorthand for a clerk to copy into longhand. A further advance would be to conduct all railway correspondence in shorthand, and we have little doubt but that in the future, between large stations, this will come to pass; and if the necessary steps were taken it might at any time be easily introduced on medium sized lines of railway in about five years.

Where the business of a station even affords work for only two correspondent clerks, and the office accommodation can in any way be contrived, these two clerks should be placed in a separate apartment. A principal correspondent clerk should be the highest paid clerk on the station (except in certain cases a cashier), and practically act as assistant station agent in course of training to become an agent, conditional upon his having previously passed through other grades of the service.

Having, we will assume, constituted the correspondence office on a firm basis, we do not object, on occasions, to the passage of papers to leading clerks of other offices for explanation; but this should not be done too frequently. Let the assistant correspondent get up the facts of ordinary cases as far as he can, and if he cannot cover the ground completely, the chief correspondent or agent can supplement the inquiry, and, if necessary, come down upon an offender. If letters are passed out of a correspondent's hands, a signature should be taken for them,

by file number, in a rough memorandum book, and it should be seen that these letters come back to the correspondence office, and are dealt with as may be necessary. Sometimes it may be convenient for reports of damages, &c., to be written in a delivery office, to which there is no objection, if they are subsequently taken to the correspondence office and there signed, registered, copied and despatched. At some very large stations an invoice office and delivery office may perform such an amount of work as each to require a distinct correspondence service, with several clerks. Rather than throw the work of the two departments into one correspondence office and make it too large, it may be expedient to organise two correspondence offices, but whether one or the other plan may be adopted, still the principle should be the same. The correspondent clerks should be located away from other clerks, and each correspondence office should form a "control" office over the other offices, the work of which gives rise to the correspondence. We know this is, in a degree, a new departure, but we believe it to be a sound principle of organisation.

The body of the octopus may be likened to the correspondence office, and the tentacles, the correspondent clerks who poke their inquisitorial inquiries everywhere, and drag out delinquencies, misconduct, or malpractices to be patched up, condoned, or reorganised.

Upon some railways there is a practice of using lithographic forms, or as sometimes termed, "question and answer" forms. These forms are pinned to letters with some such remark as "please let me have your report on attached." We consider this a vicious plan in respect to *goods* correspondence. It emasculates the intellect of grown clerks, and trains young ones to become dummies. The great object in correspondence is to get clerks to read the papers and understand the facts of each case, while these abortive forms encourage clerks to skim over the last letter on a case, that they may discover to whom they can next send the papers, and by pinning one of these abortive forms thereto further get rid of the papers for the time. The correspondent clerk should act as a deputy censor and detector. He should grasp the complaint and difficulties of each case as far as can be seen from the papers at the time being, and deduce and elicit from the employees concerned, the true facts. From the nature of the complaint or the difficulty raised, he should be able to conjecture from his acquaintance with the work what has gone wrong, and shape pointed questions accordingly to unfold the true facts. The "please let me have your report" formula, trains a clerk to mental laziness. It also unnecessarily increases labour and correspondence, because instead of the inquiry being confined to the salient points, too frequently a lot of superfluous evidence is collected quite outside the real issue.

At some large stations there is a practice of letters being written between office and office to get information, or for some person to report on some particular case. This kind of thing should be kept within the narrowest possible limits. Wherever a clerk can go to an office or to a foreman and get the facts personally, he should be prohibited from writing. Clerks will sometimes write letters to another office in the same building, treating the office as if it were a station fifty miles away.

Exact reports from foremen, shippers, and loaders, when it is done to save a correspondent clerk "referencing" the facts from such employees, is highly objectionable. Reports of transactions should not be asked from foremen, shippers, or loaders, unless in very special cases where there may be an intention of punishing them or charging them with part of a claim or uncollectible amount of carriage; then it is but fair, in putting them upon their defence, to give them a chance to exculpate themselves in writing.

REGISTERING LETTERS.—There are many plans of registering letters, and each man extols the plan with which accident has made him acquainted, and force of habit has familiarised to his understanding. A given centre may be arrived at from various diverging roads, and each man's habit leads him to start from a different place of departure. One man can elude or control one class of obstacles in his passage to a given point quite beyond the ken of another man. Two men may each elude the obstacles in the roads they may have selected to travel, whereas if the two men were transposed, each to travel the road of the other, neither would reach the goal. This will account for the success some men may attain by their own peculiar methods, supported by their individual force of character. We cannot, however, expect to find all men possessed of exceptional force of character so as to be both workers and organisers; it is therefore necessary to provide plans by which the labour of average men may be organised, so that certain fixed results may be in a certain sense mechanically insured.

In registering letters and working correspondence you want to keep a record of—

- (1.) The letters you receive and the dates of receipt.
- (2.) The letters you forward and the dates of despatch.
- (3.) That the letters you receive are promptly answered.
- (4.) That you obtain answers promptly to the letters you forward.
- (5.) That letters or cases of correspondence are put away, so as to be easily and quickly obtainable for perusal.

In the execution of these five material points is embodied the routine indispensable to the carrying out of the matters required to be done, and which the correspondence is only the machine for accomplishing. Many men never rise above the mechanism of correspondence, and to them a letter is a letter even if there be nothing in it. A business letter, however, should convey the idea of a thing done or to be done; it should contain a spirit of action, a realisation of the matter in hand, evidence of life, vigour and thought. The mere paper and ink is the vehicle for thought, but the words and the way they are combined and strung together, is the outcome of the individuality and brain power of the writer. No organisation in the way of plans can wholly meet the deficiencies of inferior staff, but on the other hand inferior staff may be greatly helped and trained by the aid of good plans. The following plan of registering correspondence we devised many years ago, and have had it, with little variation, in constant use ever since:—

REGISTRATION OF LETTERS.

PLAN No. 1.

With this plan of registration two letter registers are kept, an inwards register and an outwards register. The letters are sorted and registered in one or the other of these books according as they are inward "interrogatories" or outward "interrogatories." After an inward "interrogatory" has been answered, the matter then is closed until the inquiry station may further interrogate. Outward "interrogatories" relate to matters that are initiative with the station commencing the correspondence, and which that station is responsible to carry through to a settlement. This division of the correspondence brings together in one register all letters that require, when unanswered, to be "repeated." By using columns in one letter register for replies sent, and in the other for replies received, all unanswered letters may be easily seen when unmarked off in the registers.

By this system, the first registered number given to a case becomes the permanent file number. In the registers there are double columns, one for the current progressive file number to be used for new cases, and the other for the "old" file number used for cases where a second or third reply has become necessary. *Every* letter sent out each day is passed through one or other of the registers. If there has been previous correspondence on the matter, the first progressive file number is put into the "old" file number column, and if it is a new case the next new progressive number is given to it, in the current number column, to form a file number.

COPYING.—Copies of letters are taken loose on the new thick buff copying paper, ten or twelve copies being taken at one time. The next morning these loose buff copies are sorted and attached to the file of papers to which each copy relates.

PRESERVING FILES OF PAPERS.—Before papers are filed they should be scrutinized to see that they have been initialed by the clerk who last dealt with the case. The papers are put away in file number order, the original letters and the loose buff tissue copies being fastened together in date order, so that a file of papers contains the whole case, including letters written and letters received.

The papers are daily put away into thin light yellow pine wood boxes made in the form of a book, and these boxes are $12\frac{1}{2}$ inches long, 9 inches wide, and $3\frac{1}{2}$ inches deep, and contain about 200 ordinary cases (not claim cases). These boxes are ranged on shelves like books, and the file numbers they contain are marked on the backs. After the papers are six or twelve months old, according to the number of boxes at disposal, the older boxes are easily emptied and the papers, then seldom required, are tied up in bundles and stored in order in the book room, while the boxes thus liberated are brought into use for current files of papers.

The division of letters into two sections—(1), subjects an agent has to work out; (2), subjects other stations or persons have to work out with him, is a desirable separation of the correspondence into two

classes. It reduces within the narrowest possible limits those subjects where the responsibility or onus is upon the agent, to clear up the cases to completion. By this separation the subjects in which he is specially interested, and for which he is responsible, become more manageable by being classified together. The repetition of letters when necessary to extract replies, can in this way be carried on with greater certainty and regularity.

We consider it one of the greatest evils in a correspondence office to allow each clerk to keep his own files of cases during the time such cases are in current correspondence. It scatters papers about the office tables in disorder, it leads to the mixing up of old cases and current cases, and it enables a clerk to get his papers into a sweet muddle, of which he alone keeps the key. You never know the real state of his work as to what papers are *waiting answers*, or what papers are in arrear requiring *further letters to be written*. As soon as a reply is written on a case, the letter and the file of papers should pass from the clerk to the registrar, who then attaches the reply and the letter to the file of papers and puts them away: thus whatever papers a clerk has upon *his desk is work in hand*. This plan leads to some labour in putting away and taking out files of papers day by day, but the neatness of the office, and the check upon clerks inclined to be lazy, amply compensates for such labour. Every morning the registrars have to take out such files of papers as may be necessary, and attach the newly arrived letters to them, and place same on the desks of the clerks who have the cases in hand. It will be seen that the registrars are the custodians of the files of papers, and the clerks have nothing to do with them, except for some newly arrived letter which carries the case a stage further. The registrars are like the assistant librarians in the British Museum Library, they bring you the book you require, and when it has been read they put it back into its place. This plan creates some amount of wholesome party strife, and the correspondents and the registrars check each other, the one side insisting upon the production of papers required, and the other keeping a close scrutiny upon correct references being put upon the letters. A clerk can condone and conceal the loss of papers, if he is the keeper of his own files of papers, but when the custody of the papers is in other hands he at once clamours for their faithful production.

REGISTRARS.—The registrars and the clerk appointed to open letters should come on duty an hour or so before the other correspondent clerks. The letters, as opened, should be "date stamped" and sorted into two heaps—(1), letters bearing the receiving station's correspondence reference; (2), letters *not* bearing the receiving station's reference and hence new inquiries. These latter should at once receive a file number in the inwards register (to be used by the clerk when writing the answer) and passed to the clerks who, according to the character of the cases, are appointed to deal with them. Number one heap then requires dividing into (A) letters bearing the *inwards* registered reference that are second letters on subject where there has been previous correspondence; (B) letters bearing the *outwards* registered reference that are answers to outwards letters. Heap "A" will then require registration

in the inwards register, using the *old file* number, and inserting it in the column appropriated to the *old file* number. These newly arrived letters will then require to be attached to the files of previous papers to which they refer, and passed to the clerks who last dealt with the cases. Heap "B" being answers, will require to be marked off in the outwards register showing the date of receipt, and will also require to be attached to their respective files of papers, and passed to the clerks having the cases in hand. No letters should reach the clerks until they have first passed through the registrars' hands and been dealt with by them.

All the outwards letters (interrogations), which we will suppose are worked under "I," will require to be entered into the outwards register as soon as written and signed. If a subject has already received a file number, the correspondent clerk should put it upon the letter when he is writing it. The registrars when registering will insert the number in the *old* number column. If it has no file number and is a new inquiry the registrar will in that case give it the next progressive file number.

All replies to inwards letters, which we will suppose are worked under "D," having been already registered, it will be only necessary for the registrar to insert against each entry in the register the date the reply is despatched. Thus a very easy check may be kept upon the duty of answering letters, because a glance down the one column of the letter book will show blank spaces where the dates of the answers are not filled in.

In registering "repeats," it is simply necessary for the registrar to write against the unanswered letters "repeated" and date, and then register the repeat on the day of despatch under the *old* file number. Thus all the repeats are brought forward day by day and held within the compass of say, seven days' transactions in the register.

Postage stamps are sometimes a source of great temptation to some youths and junior clerks in correspondence offices, and therefore it is the safest plan to keep temptation as far as possible out of their way. When stamps in refund of carriage, overcharges, and otherwise have to be sent by letter, the clerk who writes the letter should enclose the stamps in it and close it securely, and if not too inconvenient, likewise put it into the post; if then any miscarriage occurs only one person will have had a hand in the matter. It is also objectionable to give youths a quantity of postage stamps to keep and use, the better plan being for the junior clerk to first enter up all the post letters for the day in the postage book, and then take the book to the cashier or a responsible clerk who should total and initial the book, and give out only the exact number of stamps required for the letters on that particular evening, and no more. Stamps perforated with the initials of the company are of great use.

OUTWARDS REGISTER BOOK.—Letters emanating or sent from a station and initiatory, asking for certain information, are to be entered into this register; and where such information is not duly furnished, then a second, third or fourth interrogatory application may have to be written to obtain it. By carrying on, in a separate register, this class of correspondence which rests with an agent to keep alive, it is much

easier to repeat letters and push matters to a conclusion; in fact, he condenses all subjects together in which he has to take the initiative, to extract a reply from a station or person.

When six or seven replies are received on one subject, it would be very tiresome to have to look up six or seven file numbers to find each reply. To avoid this use the number given to the first outward letter as a *file number*, and keep all the replies on this number. If the loose buff paper is used for copying, file these copies of outward letters also on the same file number. If letter tissue books are used, the "outward" copies must necessarily be scattered through the copying book, and it will be necessary to use the folio of the copying book as a second reference number on each letter, to easily turn them up, unless a continuous number is used and the letters copied in same order.

The usual objection to a file number is, that with most plans where it is used only one registration takes place. It may then be said that in tracing correspondence to find replies, an agent has to turn back to find the number of the first letter or file number, and in the absence of having the date, much time is lost in thus tracing up the reference. It does not follow that a second registration necessarily means a second file number, as an agent may register each fresh letter as sent out, without giving it a fresh progressive file number. Register "second" or "third" letters on the day of despatch with the other letters of that date, but still use the original file number. To prevent confusion between old file numbers and the current progressive file numbers, use in register book two columns for the file numbers the same as is done in using two money columns for old outstandings and current amounts. Put old file numbers in one column, and use the second column for current file numbers. This registering of every outwards letter gives rise to some labour, but it is a reasonable and proper thing that every letter which goes out each day should be registered, so as to keep a correct and complete record. This affords great facility in tracing, because *if an entry can be found of only one letter despatched on a particular case it gives the file number, and by that number an agent can turn up the papers at once.* Thus the frequency of registration enlarges the facility of finding papers, when the file number may not otherwise be at hand.

If copying books are used, and the letters are usually copied in the order in which they are registered, and the letter book folio page need not necessarily be used, as the letter on an old file number will be found copied within a page or two of the last progressive current number, traceable in the register.

Provision has to be made for cases of a combined inwards and outwards character like the following—Station A reports that a certain consignment of goods has been refused by the consignee, and it then becomes necessary for the forwarding station to write to the sender for instructions, and to repeat the letter to such sender until instructions shall have been extracted from him. The letter from station A will, by our plan, fall into the inwards register and should be acknowledged. An outward interrogatory must then be written to sender and entered in the outwards register, so as to keep continued pressure upon him.

When sender supplies the instructions, the agent will not know to whom to write unless the file number references are crossed in the inwards and outwards registers, hence it is necessary to do this.

In these "combined" cases you need not necessarily give the outwards letter an *outwards* register progressive file number. For example, suppose you number this outwards letter R 10/^{3608 I.}/_{321.} The R 10 will be the tissue letter book, but if you use loose buff tissue copies you will only require the letter R and not the number ten. The 321 will be the tissue leaf of the copying book, and that number will not be required if the use of loose tissue copies is your practice. The 3608 I. will be the file number of the *inwards* correspondence. Thus all your papers will be on the one (inwards) file number, and you simply pass the outwards letter through your *outwards* register to insure its being repeated if necessary. In this way you avoid having two file numbers and two files of papers upon the one subject. If you use loose buff tissue copies, the copy of your outward letter will be attached to the inwards file number 3608, and still the entry in the register will insure the repetition of the letter until an answer is received. The outwards register amounts almost to a "repeat register," that is to say, that all letters not marked off in it as having been answered will be repeated. In the remarks column of the outwards register should be inserted the inwards file number "3608 I." The tissue copy in the letter book may be turned up in the rotatory order as the letters are registered, or if convenient, the folio can be added to the file number "3608 I/321."

A difficulty sometimes arises in keeping the initiative in the outward correspondence. A letter is written to a station and an answer comes back which is indefinite and only amounts to an acknowledgment. If the outwards letter is then marked off in the register, all track is lost and the initiative is passed as far as the register is concerned. To meet this you must either not treat this acknowledgment as an answer sufficient to clear the entry in the register, or otherwise you must write a second letter as follows—"I note your acknowledgment and wait your further reply." By putting this second letter through the register, using the *old* file number, you preserve the initiative and provide for the necessity of a "repeat," should there be occasion to send one.

INWARDS REGISTER.—The keeping of this book is precisely the same as the outwards register, the only variation being that this book is used for recording and numbering letters that do not require repeating by the station agent receiving the letters.

OUTWARD REPEATS.—The repeating clerk each day takes the outward register book, and at a glance down the proper column, sees the letters not marked off, and hence unanswered for say, seven days or such number of days as may be allowed for the answers to be given. If loose copies are used, the registrar should each day get out all the files of papers of unanswered letters that require to be repeated and pass them to the repeating clerk. The repeating clerk should test the file numbers with the register to see he gets all. If tissue letter books

are used the repeating clerk can take the letter book and work from it. To guard against registrars neglecting to mark off letters answered and thus lead to unnecessary repeating of letters, it is well for the repeating clerk to show the "repeat" before despatch to the clerk who has the case in hand, or to inquire if the matter has been settled by a personal interview. Thus an unnecessary repeat may be often stopped, or the registrar caught tripping.

A very vicious practice is sometimes followed of sending printed or written repeats, viz., "Please see my so and so of such a date, and favour me with a reply." This practice is vicious where it is a first or second repeat, and the station or person written to has never acknowledged the first letter. If an acknowledgment is not given to a first letter in seven days, you may suppose (1), the letter miscarried; (2), the letter has been mislaid by the receiver; (3), the receiver is a careless person who does not choose to answer. In either case you are pretty certain to get a reply to such a printed circular—"I cannot trace your first letter; please hand copy"—thus time is wasted and the temper is liable to be spoiled. To meet these contingencies, first or second "repeats" should be the *full* "repeat" of the first letter. Where the first letter has been acknowledged, but a definite reply not given, then it is allowable to give reference to that acknowledgment and repeat, "See *your so and so* in reply to my so and so, and please give me a further and definite reply."

The repeating of letters remaining unanswered should be a duty confided to a careful clerk, who should carry it out regularly and perseveringly. The importance of repeating those letters to which answers are due cannot be too highly estimated, more especially where an agent has to acquire information for the public. If a trader desires information which an agent is expected to furnish, and the agent does not obtain it in a reasonable time, the trader attributes the failure to the agent personally, however much the latter may endeavour to explain the difficulty or failure.

Clerks repeating letters that are not "marked off" as answered, should be specially cautioned not to depend entirely upon the marking off. Circumspection should be exercised, and particularly in repeating letters to the public asking *for payment of accounts* or on other matters. Such letters, before being repeated, should be shown to the cashier or the clerk who has the case in hand, to know if the matter has been settled verbally or by telegram. Sometimes matters are settled by traders without replies being given to an agent's letter, and if then the letter is unnecessarily repeated it looks stupid, gives the trader trouble and annoyance. An agent should deal sharply with a clerk who carelessly repeats letters, when the subject matter has been already settled.

INWARDS REPEATS.—These are the Mother Cary's chickens of correspondence, and when they are very numerous it is pretty certain there is a heavy ground swell, only waiting a puff of wind to burst into a great storm. Inward "repeats," like barometers, indicate the state of the weather. If inward "repeats" are persistent and numerous in relation to any one clerk's work, we should get rid of him. An agent, or his right hand man, should specially deal with all repeats and read

a pretty severe lesson to any clerk in fault. A sixpenny fine ticket for every "repeat" coming to a station, when found to have been a proper and justifiable "repeat," has a very exhilarating effect upon the person found to be in fault.

INDEX REGISTER.—In some railway offices at large stations the correspondence with the public is very voluminous. In such cases a separate pair of registers for letters from the public may be kept, but even in addition to this, difficulties may still arise in tracing files of cases, because the public cannot be relied upon to give the correct registered number when answering carriers' letters. To obviate this an index register over and above the ordinary registers should be kept, and this index register should be in the form of an alphabetical ledger list. The names and addresses with the file numbers of the cases, is a sufficient entry by which papers may be traced.

TELEGRAPH MESSAGES.—Difficulties often arise when, in the progress of a case treated by correspondence, telegrams are interpolated between the exchange of letters, or where a letter is answered by a telegram. Sometimes copies of outward telegrams are either retained in the counterfoil of the telegraph book by the aid of the black manifold carbonic paper, or tissue copies are taken in a letter tissue book, or perhaps no copy is retained. If loose buff paper copies of letters are used, it is the best plan to copy the outward telegrams in like manner and attach them to the papers. When this cannot be done we prefer to take tissue copies of the telegrams in a letter tissue book, rather than depend upon the manifold copies, which are frequently very indistinct, arising from some clerks being unskilful in writing so as to produce a good duplicate. If the work is not too heavy, a youth might subsequently make hand copies of such telegrams as may be necessary from the tissue letter book and attach same to the file of papers. Where letters are answered by telegrams the file number should be at once put on the telegram, and after being dealt with, the telegram should be attached to the file of papers. Many telegrams despatched are of course quite independent of cases in course of correspondence.

REGISTRATION—PLAN NO. 2 (GLASGOW).—Two index books are used, one for "forwarded" and the other for "received" letters. The letters are not sorted and divided as in plan No. 1. In the "forwarded" index book *every* letter is indexed which is sent out. In the "received" index book, only the last letter finishing the case is indexed. The indexing is done in alphabetical order both for stations or persons. As far as possible the letters for each station or each person are indexed together continuously from day to day in ledger account form. A separate account is kept for "sundries," that is for letters to persons with whom there is no continual correspondence. The particulars indexed consists of the name, date, subject and file number. The arriving letters received from stations or persons are not indexed on account of the labour. It is claimed that one indexing with this system is as good as a hundred entries, as by the file number any case or set of papers are easily turned up.

FILE NUMBERS.—The indexers keep a note of the last file number of each day and commence next day with the following consecutive number.

COPYING.—The letters are copied in a letter book, and a second or loose copy is taken at the same time, and this loose copy is afterwards attached to the file of papers, so that each file of papers contains both "in" and "out" letters respecting the case.

PRESERVATION AND PUTTING AWAY OF CORRESPONDENCE.—Each clerk keeps the files of those cases he has in hand until he completes them, and when the cases are completed, the papers are tied up in bundles of about two hundred cases and labelled with the commencing and concluding file number written on a card.

REGISTRATION—PLAN NO. 3 (MANCHESTER).—Three letter registers are kept, one for inwards letters and two for outwards letters. In a sense, however, there is really only one letter register book, which is the inwards, because only one progressive file number is used, and no letter gets a progressive file number unless it be passed through the inwards register. The two outwards registers are practically only index books.

The use of only one file number prevents any distinctive division between outwards and inwards letters beyond the indexing. *All* letters are passed through the inwards register each day as received, whether they are letters starting a subject, or whether they are letters that are replies to an inquiry. A distinction is observed with "new subjects" and those already in course, as only one progressive file number is given to each case, however many letters may pass to and fro before it is cleared. To distinguish in the inwards register old subjects from new ones, red ink numbers are used for the progressive number of "old" cases while black ink numbers are used for new cases. The red ink numbers are written in the same column in the register as the black ink numbers; in fact, the "old" red ink letters are interpolated so as to prevent the progressive black ink number following one after the other. The object of the plan seems to be to insure an accurate account being taken each day of *every* letter that may be received, without regard to any arbitrary division of the letters.

An outwards letter initiating a subject receives a progressive file number in the inwards register, and is also indexed up in the outwards index. If it be a "second" outwards letter and has already a progressive file number, then it is only indexed up in the outwards index book. To get a progressive file number, a letter must pass through the inwards register, which practically is a file number book as well as a letter register.

In the case of a station advising refusal of certain goods, the inwards letter from the station would be registered with the next progressive number in the inwards register. The outwards letter to the sender would be written upon the inwards progressive number, but indexed up in the outwards register, in the part allotted to the alphabetical letter with which his name begins.

OUTWARDS REGISTERS.—There are two of these books in use for indexing. One is arranged in ledger account form and alphabetical order, a folio being opened *for each person or station* with whom correspondence is frequent. The second book is used for “sundries” or persons who are only occasionally written. The letters are here still indexed in alphabetical order, the book being divided up for the different letters of the alphabet. In each of these outward books the entry comprises date, name, subject, and the copying-letter book folio, for each letter.

COPYING.—The letters are copied in a letter book and no loose tissues are taken, the letter book being referred to whenever requisite to ascertain the tenor of a particular letter.

REPEATING.—Papers on subjects requiring to be repeated are placed in file boxes directly opposite the clerk who has the subject in hand, each box being labelled to indicate the class of correspondence therein contained—such as “Urgent Matters,” ordinary “Local Corres.,” “Foreign Corres.,” &c.

PRESERVATION OF PAPERS.—When subjects are completed, the papers are carefully arranged in progressive file number order in wooden letter-racks, each containing two hundred and fifty cases, and these racks are labelled to indicate the range of progressive file numbers embraced by each. When necessary to make room for newly filed papers the oldest racks are cleared out and their contents made up into parcels, the two hundred and fifty cases being maintained “per parcel.” These parcels are then placed in consecutive order on shelves in the book room.

ILLUSTRATIVE CASES OF CORRESPONDENCE INCIDENTAL TO THE LOADING, UNLOADING, INVOICING AND TRANSIT OF GOODS.

Referencing—goods delayed—missending, lost goods, and erroneous entries—goods stolen or pillaged—goods refused by consignee—stoppage of goods in transit—packages of goods “crossed”—goods arriving in different wagon to the wagon by which invoiced—damage by leakage, breakage, wet, and miscellaneous—goods uninvoiced—goods found deficient by consignee after delivery—missing circulars—goods invoiced for one consignee or town and addressed for another consignee or town—consignee not known, insufficient address—goods received different to invoice—packages invoiced as empty, and found to contain goods—returned empty packages delivered as goods—goods invoiced by one route and addressed by another.

REFERENCING.

FORWARDING STATION.

Referencing is a most important feature of correspondence; by it is meant an examination of the invoice entry, a comparison of the entry with the correspondence and with the consignment docket, and an inquiry into the facts of the case. It also involves the insertion of the correspondence reference on the invoice copies in the margin opposite the entry. By this precaution, if at some subsequent period, further

correspondence should arise about the same goods, on turning up the invoice entry such previous correspondence can be readily traced. The points raised by the correspondence may often be cleared up by the comparison of the invoice entry and the consignment note. The consignment note should also be examined to see that it bears the check of the loader, to indicate that he really loaded the articles of goods mentioned (in the case of missing goods). The waggon number should also be tested to see if the loader's record of the waggon number agrees with the waggon number given on the invoice. It should be seen also if this waggon number is the same in which the other goods travelled, that are entered upon same invoice. The referencing should exhaust the hypothesis that an erroneous or double entry has been made on the invoice, or as far as the documentary evidence goes, that the package has been really loaded into no other waggon than the waggon for which it has been invoiced. The object of the referencing is to turn up the record, test its correctness, and before making further inquiries exhaust the possibility that the matter complained of arises from a clerical error. If it is found to arise from a clerical error, then it is soon put right without further inquiry being necessary.

In referencing overcharge correspondence it is especially important to make some note in the invoice books of having done so, in case an attempt should be made to get two sheets certified at different periods of time for the same amount. It is a good plan to make a note on the tissue copy of the outwards invoice book, because the invoice must be referred to in order to authenticate the entry, should a second sheet be received; the note giving reference to the correspondence will then lead up to the discovery of the certification of the previous sheet.

RECEIVING STATION.

REFERENCING.—With some variation the same kind of examination and referencing requires to be done at the receiving station in connection with correspondence, only here the correspondence reference should be inserted, either on the original invoices (when retained at the station) or against the particular entry in the delivery book or delivery sheet, according to the particular system at the station.

GOODS DELAYED.

RECEIVING STATION.

TREATMENT.—In certain particular cases where the goods have not been received it may become a case of "goods missing," which see. If the goods have arrived, after having been delayed in transit, then the matter may resolve itself into a case of "refused goods," which refer to. All that the receiving station agent can do, in a simple case of delay, is to urge and persuade the consignee to accept the goods, and if any loss has arisen to send in his claim. At the same time endeavour to extract from consignee, by inquiry, the extent of the real inconvenience and loss, if any, he may have sustained. Do this in anticipation of the possible claim that may be subsequently made. If consignee inquires for the goods before they have arrived, the receiving

station may contribute to the goods being traced, by keeping pressure upon the forwarding station and using the telegraph and correspondence for that purpose. It is not always wise to tell the consignee of the arrival of the invoice if it has come to hand without the goods, or he may form an opinion there has been negligence, and send in a claim for the delay.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—The same treatment applies as where goods are missing, which see.

WHERE PACKAGES OF GOODS ARE REPORTED TO BE LOST OR MISSING—MISSENDING AND ERRONEOUS INVOICE ENTRIES.

RECEIVING STATION.

TREATMENT.—Special promptness in reporting goods deficient is of the greatest importance. In the case of goods invoiced from foreign companies' stations, the practice between railway companies parties to through booking, is to cast the liability upon the receiving company neglecting to report damage to goods within twenty-four hours. This is a very salutary practice, because delay in making known the loss greatly increases the difficulty in tracing the goods when the packages have been missent—even when the goods are invoiced from a local station the same reason equally applies. Although the practice between the companies parties to through booking is that twenty-four hours grace is allowed from the time the damage is discovered, yet it might more appropriately be "twenty-four hours after the damage could reasonably have been discovered."

Whether the correspondent clerk obtains his information from an unloading clerk's or a checker's remark on the invoice, or from an unloading report book, the passage of the information from one hand to that of another should be quick and certain. The report of the deficiency sent to the sending station should give the reference to the date and number of the invoice, and the unloader's report should show the date and time the waggon was unloaded, together with the unloader's signature.

It is defined as the duty of the sending station to trace missing goods, but the receiving station is not exempt from keeping the sending station up to this duty by frequent and reiterated telegrams or letters of notice, that the goods have not since arrived. Immediately, however, the goods do reach the receiving station, that station should at once notify same to the sending station, so that further inquiry and labour in tracing may be stopped.

If the goods have been loaded as tranships, the receiving station should advise the last transshipping station that transferred the goods, as well as the original sending station. The practice between the railway companies parties to through booking is (1), that the arrival station should notice the last transshipping station and the sending station (2), that the last station agent (original or tranship) sending

on the goods that are missing, should trace them forward; (8) that, the last company in whose hands the goods may have been traced is liable for them, unless further trace can be obtained by that last company.

FORWARDING STATION.

REFERENCING.—Reference the entry.

TREATMENT.—Having exhausted the possibility of a clerical error the loader must be catechised, his memory spurred up, and the probability canvassed of the package having been loaded into a wrong waggon. The time of actual loading must be gone into and close inquiry made as to what other waggons were loaded at the same platform, about the same time of the day, and also the numbers and destinations of those waggons loaded on either side of the waggon in question. It is a somewhat common error for a package to be loaded into a wrong waggon that may be marshalled next to or near to the intended and proper waggon. It may be advisable to telegraph, but certainly to write to the stations to which the several waggons that stood near to and were loaded on either side of the waggon in question. The object being to inquire if any of the stations received the missing packages in such waggons.

If the package was loaded as a tranship, the first transshipping station must be written. When two or three transshipping stations are concerned in the transit, the receiving station, by an inspection of the invoice, may be able to see and report between which two transshipping stations the loss or missending has occurred, and this narrows the inquiry. We are of opinion that if the sending station is aware of the forward transshipping stations beyond the first, all these transshipping stations should be written, provided it is *not* actually known between which stations the goods have been lost.

If missent goods are not traced in the course of a few days the case may assume the appearance of a theft, and should then be treated as such. (See Goods Stolen.)

If the referencing indicates an erroneous entry, then no goods are really missing, and the matter is easily set right by advising the receiving station, and the case probably then assumes the form of an overcharge. (See Overcharges.)

When missing goods cannot be traced within a reasonable time, it is in some cases prudent to advise the sender and leave it to his discretion to re-supply the order, making it, if possible, a condition that when the goods are found he shall take them back into stock. This course often appeases both sender and consignee, and in the end frequently prevents or reduces the claim.

Cases often arise where the receiving station agent reports goods missing, and for many days persists that they were not received. The report of the goods being missing, however, has perhaps not been made in due course. If some days pass and neither senders nor consignees complain of the goods being short it may be suspected that consignee has really received the goods, and that they were delivered at the

receiving station without the charges being collected or a signature obtained; it is then sometimes necessary to have senders seen and questioned, when it may turn out that the consignee has really received the goods and actually paid sender for them.

When receipts are taken at junctions for loaded waggons transferred from one company to another, the practice between the railway companies parties to the through booking is that the receipt cannot be questioned.

GOODS STOLEN OR PILLAGED.

RECEIVING STATION.

TREATMENT.—The loss of the goods should be promptly reported, and especially when they are invoiced from a foreign company, as special promptness is then required. The absence of a prompt advice of the loss may infer a delay in unloading the goods at the receiving station, and, therefore, where any unreasonable delay arises at any particular station, the opportunity has been enlarged for a pillage to have occurred at that station.

If the waggon sheet (when an open waggon) or the door (if a covered van) indicates any appearance of having been interfered with, or the goods tossed about in the waggon, such information should be embodied in the report to the sending station. If it is a case of pillage and not the entire loss, but only the opening of a package and an abstraction of some of its contents, a very close scrutiny of the waggon should be made. Unloaders in such cases should be required at the time of unloading to call upon a responsible official to inspect the waggon. Evidence may often be thus collected as to the way the package was opened, and perhaps the kind of tool used; in fact, a tool, or stone, or lamp, or some such article may have been left by the thieves in the waggon, by which a clue to the perpetrators can be obtained.

If any delay arose at the receiving station between the arrival of the waggon and its being unloaded, inquiry should be made as to where the waggon stood in the yard, and its accessibility to thieves outside not being company's servants. If, while the waggon stood in the yard it was under the charge of a watchman, he should be catechised.

In addition to the advice to the sending station, the company's rules regarding advice to the controlling officer of the district, to the searcher, and to the inspector of railway police should not be forgotten. On some railways the receiving station is required to fill up a "pillage form" of advice in which the following information is required to be supplied. If such form is not in use, the station agent may with advantage embody such information in his reports:—

Date and Time } _____
Waggon arrived, } _____

No. of Train, _____

Guard's Name, _____

Driver's Name, _____

Date unloaded,	Name of Checker who unloaded the Waggon, - - -
Time unloaded,	Checker's remarks of condition of load, and if the goods in- side Waggon had any appearance of having been turned over or tampered with, - - -
Name of Watch- man or man on duty in charge of Truck from its arrival until unloaded, - - }	

If it is a case of theft of an entire package, such as a case of brandy or otherwise, the circumstances are all the stronger to necessitate prompt action. It is, however, difficult for the receiving station to know at the time when an entire package is absent from the waggon, whether it is a case of theft or of missending. Sometimes, however, the character of the goods, such as drink, or the prevalence of theft, may afford ground for suspicion.

FORWARDING STATION.

REFERENCING.—Reference the entry.

TREATMENT.—The first question to decide on opening the receiving station's advice of the non-arrival of the goods is whether the facts reported point to a case of missending or of theft. If a pillage of part of the contents of a package, then the treatment is much the same as a theft of an entire package. If it is not clearly a case of missending, it will be better to suppose the worst and act accordingly.

In cases of theft very little can be done by correspondence; in fact, it is almost a waste of time to treat the case by correspondence. It is a question for a police inspector or a searcher. If there is no police inspector on the line to whom the agent can directly communicate, advise quickly the controlling officer of the district, that he may send out a searcher at once. The searcher's work is to first trace the waggon on its journey from point to point by the aid of the junction number-taker's books and the guard's waggon road bills—(1), whether it was shunted off owing to a hot axle, or from the waggon being otherwise unfit to travel; (2), if the contents of the waggon were transferred on the journey, and this will be shown by the number of the waggon in which the goods on the same invoice were received; (3), how long the waggon stood at each junction, and if the train or trains were detained unusually at any point, which may be traced from the guard's journal; (4), the time the waggon stood at the receiving station after its arrival until unloaded.

Wherever there has been a stoppage of the waggon, an opportunity for a theft has occurred, and the longer the stoppage at any one point the greater the opportunity. The searcher's inquiry should go upon a method of exhausting from the search the unlikely stations and junctions, one after the other, and to narrow down the inquiry to the likely places. If frequent thefts occur between two particular stations,

suspicion then points to one or the other, rather than during the period of actual transit from station to station. If waggons that pass one particular junction are often found deficient of packages, then that particular junction requires to be watched.

Although thefts generally occur at stopping places, still it is upon record that thefts have taken place during transit between stations. A driver or fireman has been known to climb along his engine tender and into the first waggon on the train and pillage wines and spirits. An incline is usually selected for this purpose, and the driver or man on the engine intentionally slackens the speed of the train. The driver, fireman and guard of a train have been known to have acted in collusion, and to have stopped their train between two stations, and stolen goods from waggons, the goods being hid in a wood convenient whence they were removed by the cart of a confederate. Near Poonah, in India, we, years ago, discovered a very extensive system of theft. Some ingenious natives, near to an incline up which the trains necessarily travelled slowly, procured a long rope and made it fast to an adjacent tree, attaching at the other end of the rope an iron grapnel. During the night time this grapnel was thrown on to the sheeted waggons, and thus packages were dragged off as the trains passed slowly up the incline. This kind of wholesale theft, however, did not continue long, for by exhausting one after the other the unlikely places where the thefts might have occurred, suspicion was narrowed down until at last it pointed to a particular locality, and then a clever detective, by watching, discovered the whole thing. We also recollect a case where systematic theft was narrowed down until a station master was suspected. The particular goods shed was locked every Saturday night and the key was deposited for safety with the station master until the following Monday morning, when goods in the shed were found to have been artistically opened and pillaged. A duplicate key was then made by which means detectives secreted themselves in the shed, and the guilty person was found in the act of pillaging.

Many detections have taken place by a detective being stowed away in a waggon with goods, and when the thieves have not been actually caught in the act, which has occurred in some cases, then useful information has been obtained from the conversation of shunters and guards overheard during stoppages at stations. This has led to the removal of some of the men to distant stations and the collusion has been broken up. The most common and most troublesome kind of pillages are the small pillages of drink, and although, in a money sense, they are not very serious they are most vexatious. Sometimes such cases may be traced by the thieves being noticed to be under the influence of drink, and then it becomes necessary to trace where they obtained the liquor. Putting hot water into empty spirit casks affords a supply of drink. Forcing a long packing needle into a hamper of wine so as to break a bottle, and then catching the liquor in a bucket, is an old trick with carriers' men. Knocking a shive into a cask by the aid of a large nail and a stone, and then inserting an India-rubber sucking tube is another trick for getting drink. After the drink has been taken, a fresh shive is then hammered in to conceal the theft.

When the isolated and unprotected position of many junction stations is considered, and the many hours that waggons often stand at such places, the wonder is the pillages are not more numerous.

Where pilferages are prevalent, it is an excellent plan to arrange with the police to furnish an officer as a watchman. Where there are no night signals for a watchman to work, this may be done without much extra cost, as the company may as well pay the police authorities for a man as pay an ordinary watchman.

When reporting a case of pillage or theft to the officer of the district or to the company's police inspector, it is useful to supply the following particulars:—

Date Goods were }
received at Station, }

Name of Receiver,

Time of day,

Date loaded,

Time loaded,

Weight,

Waggon No.

Description of }
Waggon, - }

Loader's Name,

No. packages marked }
as Loaded on Con- }
signment Docket, }
and if any remark is }
made state it, - - }

Despatched by Train No.

Guard's Name,

Driver's Name,

Watchman or man }
on duty, in charge }
of Truck from its }
being loaded until }
its despatch, - - }

GOODS REFUSED BY CONSIGNEE.

RECEIVING STATION.

TREATMENT.—Refused goods are particularly troublesome to deal with. Immediately consignee refuses to accept the goods the forwarding station should be notified, so that sender may be advised. As far as possible the cause of the refusal should be extracted from consignee and reported. Consignees refuse goods (1), because the goods are not equal to sample; (2), because the goods were never ordered; (3), because the goods have been delayed in transit, or are not delivered in time for some fair, or market, or particular event; (4), because the goods have been damaged in transit, or as consignee may allege, have been overcharged; (5), because the goods having been sent, the consignee desires to beat down the sender as to the price, desiring to get the goods at a reduced figure. It is well to try and fix the consignee at the time with the real cause of his refusal, so as to prevent any subsequent invention or change of front, designed to cast blame on the carrier. There is no legal responsibility by carriers' law requiring the carrier to advise sender of the refusal, but if it can be

shown in a court of justice there *existed a usage for such advices to be given to senders*, then the carrier would most likely be held to blame for having neglected such an advice in the particular instance.

In Ireland one of the greatest difficulties in advising senders often arises from the station agent's inability to ascertain the fact of the refusal. A consignee, resident some miles from a railway station, on being sent an advice note of the arrival of his goods, will take no notice, perhaps for weeks, and the station agent cannot know whether he intends to refuse the goods or to allow them to remain at the station to suit his own convenience. In such cases it will be prudent for the station agent, if the goods have remained on hand fourteen days after issue of the advice note, to write the forwarding station notifying the non-acceptance of the goods, and requesting that the senders may be advised. If the consignee, after advice, does not remove the goods in reasonable time, say forty-eight hours, the carrier's contract of carriage may then be considered to have terminated, and the carrier becomes only a compulsory bailee and a new liability arises, namely, that of a warehouseman. The warehouseman is not an insurer, and is not responsible for fire, or damage by rats, or even pillage, *if he has taken as much care of the particular goods as he would of his own*. The warehouseman has to take reasonable care, but he is not an insurer. Refused goods, respecting which the consignee and sender dispute by correspondence over an extended period, is one of the most vexatious kind of cases that can occur for a carrier.

When the refusal arises from the carrier's delay in transit or from damage, the object of the consignee, by the refusal, is to coerce the carrier into paying compensation before accepting the goods. The law requires a consignee to first accept the damaged or delayed goods, and then send in a claim for the loss. The consignee, after acceptance, can sell the damaged goods by public auction outside the railway station yard, or in a public market or elsewhere, and sue the carrier for any real loss suffered. The carrier on the refusal of the goods, can raise the question in a court of law by suing for his carriage for the conveyance. A carrier in such a case can recover his carriage on damaged or delayed goods, although he may not have made delivery, but is able and willing to do so. The judge, however, under the new judicature acts, can, at consignee's request, join to the issue the question of the damage or delay which the court or jury will determine, and thus the matter can be brought to a settlement. If no carriage is due, it having been prepaid at the forwarding station, then the carrier must hold the goods until warehouse charges accrue, so as to create a lien upon the goods. When the carrier has a charge for carriage or for warehouse rent, he can issue a "notice of sale" to both the consignee and sender, and proceed after the expiration of the notice to sell the goods by *public auction* for the charges due; and if the goods realise more money than the carrier's charges, he must notify the fact to both consignee and sender, and inform them he holds the balance to the credit of the person who may prove to be the legal owner of the goods in question.

The carrier, however, is not left by the law wholly dependent upon realising his carriage by the sale of the goods, because in some

cases the goods may not in value be sufficient to cover the carriage. If the goods, upon sale, do not realise the amount of the carriage, the carrier can still sue for the difference, but this is rather an extreme measure. It is the better plan if the goods, by sale, are not likely to realise the carriage, to forego the lien upon the goods and sue for the carriage as a debt, which can be done, although the goods may be undelivered and upon the carrier's hands. The following forms, printed as a counterfoil book, are useful as sale notices :—

No. 1—(BLOCK).

RAILWAY COMPANY.

18

You are hereby requested to take Notice, that the Company require payment of the Sum of £ _____ being the said Company's Charges for Carriage (or Warehouse Rent) of certain Goods consisting of _____ consigned by _____ of _____ to _____ per Rail to _____

And you are hereby informed, that unless said sum be paid, and said Goods removed from the Company's Premises at _____ Station on or before the _____ instant, the Company will take such proceedings by Sale of said Goods, or otherwise, as they may be advised, to recover or reimburse themselves in the amount of their said charges.

Dated this _____ day of _____ 18

For _____ Railway Co.

To _____

If the carrier makes delivery to consignee's place of business, and after having tendered the goods there they are refused, the carrier on carting the goods back to his warehouse ceases to hold the goods as a carrier. Having completed his *contract of carriage* by the tender of the goods, he then holds them as a warehouseman and not as an insurer of their *safe keeping under all contingencies*.

In some cases the consignee may desire the refused goods to be sent back to the sender. In such a case the station agent should exercise caution and decline to return the goods unless the consignee hands in a written consignment note and *pays the carriage* for the journey then due. Sharp traders will sometimes accept the goods, pay the carriage, and then reassign them back to the sender and raise the carriage for the one journey as a "paid on." If the consignee in doing this carts the goods from the station and then next day carts them back again, an acceptance of the goods has virtually taken place and it ceases to be a case of "refused goods."

If the sender (*i.e.*, consignee), without removing the goods from the station, desires to go through the formality of paying the carriage on the goods and the next minute demands the amount back again as a "paid on," the station agent should not advance the money under such circumstances.

When the sender's name or address cannot be traced from the consignment note, some trace may often be obtained by opening the packages and examining the contents.

The practice between the railway companies parties to through booking is—(1), for refused perishable traffic, particularly fish and fruit, to be sold at the arrival station by the agent to the best advantage, and on no account for it to be returned to the departure station; (2), to only return goods to sender upon consignee's written order, and upon payment of the carriage already incurred; (3), in a general way to keep the refused goods on hand until the sender orders them back or otherwise disposes of them.

This latter practice we do not approve of, and it is evidently based upon the decision of *Crouch v. Great Western Railway Company*, commonly known as the "Plymouth Packed Parcel Case," tried in the Exchequer Chamber, February 23, 1858 (*Law Journal Reports*, vol. 27, page 345 *ex*). Many railway officials erroneously believe this case to have decided the question, that on the refusal of goods by consignee the carrier is not legally warranted on his own authority in returning the goods to the sender. Baron Bramwell on the first trial, and Justice Crowder on the appeal case, strongly objected to the ruling of the other judges, who, however, being in a majority, gave judgment against the company for returning the refused parcel in eighteen hours after its refusal. The two judges contended that it was admissible for the carrier to return the parcel after the refusal by consignee, but against this view the case was decided upon the ground that the parcel was returned before a *reasonable* time had elapsed after its refusal. We therefore express the opinion that a carrier may legally return refused goods to the sender, if a reasonable time has elapsed after the refusal. A reasonable time would certainly be seven days, but we advocate that

the carrier should keep the refused goods on hand, while he has a reasonable hope that the sender and consignee may come to terms. But when from the correspondence there seems no chance of the two coming to terms, whereby the carrier may be relieved of the charge of the goods, we should return them to the sender, both in the case of through and local traffic.

Immediately after the refusal and before the case has ripened into the stage when the issue of a "sale notice" may be advisable, a written notice should be sent to the consignee advising him that the goods remain waiting his instructions for disposal and are subject to warehouse rent, and also in the event of a second delivery being made, to second cartage.

FORWARDING STATION.

REFERENCING.—Reference the entry.

TREATMENT.—On receipt of the advice from the receiving station it should be observed what time has elapsed from the date of forwarding the goods to the date of the notice of their refusal. If the receiving station has been dilatory in advising the refusal, it should be noticed and the station taxed with the fault. Senders should be promptly advised by letter of the refusal, and if no instructions for disposal are supplied, the letter should be repeated at regular intervals, and definite instructions extracted, whereby the carrier may be relieved of the charge of the goods. If the case drags on a wearied course and neither consignee nor sender will remove the goods, then a "sale notice" should be issued as explained under receiving station. A responsible officer of the company, however, should sign such notice, or the notice may in subsequent legal proceedings be held not to have been a legal notice or a legal act on the part of the company. All that the forwarding station can do is to keep pressing the sender for instructions to dispose of the goods.

The senders will sometimes accept the situation, and desire that the goods be held to their order until their traveller pays his next visit to the particular town in question, but this may not be for three months. If the case takes this turn, the sender should be asked how long he desires the goods to remain on hand, and at the same time he should be informed what the charges will be per week for warehouse rent. This will take away from the sender the chance of subsequently expressing surprise or indignation at being charged warehouse rent when the goods have remained on hand for many weeks.

We have known cases where refused goods have been overlooked and have remained on hand for many months, and the sender has then lodged a claim against the company, on the ground either of not having been advised of the consignee's refusal of the goods, or because the goods have been damaged or have then become out of season. To guard against such contingencies arising the sender should be constantly written and pressed to remove the goods.

The following printed form of advice we introduced, and it has proved very useful. When the receiving station has the sender's address on the goods, the advice is then sent direct by post from the receiving station:—

ADVICE OF REFUSED GOODS.

From _____ Station,

_____ day of _____ 18

SIR,

I have to advise you that the goods as stated below have been refused by the Consignee, this Company having performed their contract of carriage, decline to assume another contract, fixing upon them the responsibility as warehousemen to warehouse the goods stated below. I have, therefore, to give you notice that if the goods are not accepted by consignee within fourteen days that they will be returned to your address, with all charges due, and if delivery is not accepted by you a Sale Notice will be issued, so that the Company may recover their charges due, and be relieved of the goods.

Goods _____

Consigned to _____ of _____

Date of arrival _____

Sent by _____

Address _____

For _____ Company.

Station Master.

A little confusion is sometimes caused by the sender writing direct to the agent at the receiving station, giving instructions for the disposal of the goods, and, in the meantime, the forwarding station, not knowing this, continues to "repeat" to the sender for instructions. To obviate this, when repeating to the sender, the forwarding station should also write the receiving station to know if the goods are still on hand, refused, as no reply can be obtained from the sender.

STOPPAGE OF GOODS IN TRANSIT.

(See also under special heading "Stoppage in Transitu.")

FORWARDING STATION.**REFERENCING.**—Reference the entry.

TREATMENT.—This kind of case is sometimes very critical and difficult of treatment, so as to insure that the company are kept free from any legal proceedings or liability that may subsequently arise. The right of stoppage of goods in transit turns upon the ownership, and the ownership turns upon the contract of purchase and sale between sender and consignee. The Statute of Frauds often comes into play, because, under that statute, a contract to purchase, when

the goods are over ten pounds in value, to be legally binding, must be in writing. Legally and in a general way, as soon as goods are in the carrier's possession, the ownership of the goods has passed to the consignee, but there are certain legal exceptions, and it is with these exceptions the difficulty usually arises. If the consignee becomes a bankrupt or insolvent, then the law gives the sender the right of stopping the goods in transit. This gives rise to endless contentions as to when the transit has stopped. In the first place, if the sender repents having sent the goods, from something he may have subsequently heard about the consignee, the sender cannot then stop the goods if the consignee is a reputed solvent man, and if the purchase has been legally made. We will, however, suppose that consignee has become insolvent, then it is a question whether the sender shall recover his goods, or that they shall pass into the hands of the consignee's official assignee and be sold for the general benefit of the estate. The critical nature of stopping goods in transit has led to most railway companies using a printed form of guarantee or agreement, to which should be attached a sixpenny stamp *at the time of signature*. This agreement the sender should sign, undertaking to hold the company harmless from all consequences if the goods are stopped and withheld from the consignee and delivered back to sender. It is wise, in some cases, to get this agreement duly and properly signed, *witnessed, and stamped*, before taking any action. It is an agreement that should be very carefully worded, and should be qualified that the company will make the stoppage, provided the *transitus shall not have ended* before the instructions to effect the stoppage can be transmitted. If it is not so qualified the carrier may afterwards have the sender as a claimant against him, on the ground that, owing to negligence, the stoppage was not executed by the carrier before the *transitus* had ended, and which there was sufficient time to have done. Where there is a telegraph, whether it be the company's or that of the post office, recourse should be had to it, rather than trust alone to correspondence; but it is well to follow up the telegram with a letter, ordering the stoppage of the goods.

RECEIVING STATION.

TREATMENT.—The receiving agent should be specially active and give prompt action to any instructions that may be received direct from the sender, or from the forwarding station in respect to stopping delivery of the goods to consignee. Directions should be given *in writing* to goods clerks, delivery porters or others who may be concerned in the advising, cartage, or delivery of the goods. The routine course of making the delivery on arrival is so strong with the men, that it is by no means an unlikely thing for the goods to pass "all hands" to consignee as a matter of course, and the stoppage be thus overlooked or neglected.

If the goods have been despatched from the forwarding station and have not arrived before a telegram or other advice reaches the receiving station, ordering stoppage of the goods, that amounts to a good stoppage in *transitus* and is difficult to upset. Supposing, however, the goods have reached the receiving station and consignee has

been advised of their arrival, but has taken no notice, then the order to stop delivery will hold good. If even the goods have been sent out by the *carrier's* delivery cart, and a messenger runs after the cart and stops the goods before they have reached consignee's premises, that will hold good, provided nothing has previously taken place between consignee and the company's servants that would constructively end the transit. The critical point is as to constructive delivery. If the consignee or his assignee, either personally or by letter or messenger, desires the carrier to hold or take charge of the goods for him after they shall have arrived, then the transitus will have ended and the goods will have passed constructively into consignee's possession, the carrier holding the goods *as a warehouseman* for consignee or his assignee. If the carrier then recognises and acts upon the sender's order and gives up the goods to the sender, the consignee's assignee can recover the value of same from the carrier.

Where the consignee was in the habit of having his goods warehoused in the carrier's warehouse, and of selling the goods to his customers out of the carrier's warehouse, giving the carrier orders for delivery of same, it has been decided by law that the transitus had ended *as soon* as the goods had been unloaded into the carrier's warehouse; that is to say, that constructive delivery had been effected, and consequently the sender had lost his right of stoppage *in transitu*.

When goods are consigned "to order," and have perhaps been transferred once or twice from one consignee to another, and one of these becomes insolvent, then the legal ownership becomes a complication which only a trial can disentangle. The safest course then is to hold the goods and leave the litigants to fight it out among themselves, as to who is the legal owner of the goods. This might arise in the form of an interpleader action.

PACKAGES OF GOODS "CROSSED."

RECEIVING STATION.

TREATMENT.—This is often a very troublesome and intricate description of case. It frequently occurs with sacks of flour or grain, cases of wine, pockets of hops, marked bales of Manchester goods, boxes of bacon and firkins of butter with scribed marks, boxes of soap, and other "marked" goods not fully addressed. The unloaders at the receiving station should be very careful in checking "marked" goods with the invoice, and on discovery of a wrong package, quickly report the circumstance to the forwarding station, giving the actual weight of the package and all the scribed or other marks, numbers, weights, letters, or brands on the package, and taking every care to describe the package fully, so as to afford the forwarding station every help in tracing the real and correct consignee.

FORWARDING STATION.

REFERENCING.—Reference the entry.

TREATMENT.—The only way by which the matter may be put right is to trace the real and correct consignee of the package reported

as having been wrongly received, because *that* consignee will in all probability have received the other package, the one having "crossed" the other. Where both receiving stations or both consignees complain of receiving wrong packages, the "crossing" is easily detected. This does not however always occur, for too often the "crossing" will have escaped the check at both stations, and the first complaint will come from the consignee who has received the smaller package, or the package with the lesser quantity of goods, or the package with an inferior quality of goods in it, whereas the consignee who has derived advantage from the "crossing" of the two packages holds his peace. A diligent search should be made through the invoice copies on the dates upon which the "crossing" must have happened, and if this does not disclose the mistake the search must be continued through the consignment notes for the particular dates. If the loaders keep any books in which the consignment notes are copied, the search should be extended to such books. When the goods have been received from another carrier, the "crossing" may have arisen in his hands, and then the search must be extended to such previous carrier. If the package bears the brand of the *right* sender, but is still the wrong package for the particular consignee, then the "crossing" may have occurred with the sender about the time he was making the delivery of the goods to the carrier. Great help is afforded to trace out the facts, where a book is kept and posted up daily showing the goods invoiced and not received, also goods received and not invoiced. This information is collected day by day from the reports received from the stations. With perseverance and ingenuity a correspondent clerk will be pretty sure to ferret out the mystery, and he should spare no pains to do so. If the matter is successfully traced, all those in fault, through whose hands the goods passed, should be sharply dealt with.

GOODS ARRIVING IN A DIFFERENT WAGGON TO THE WAGGON BY WHICH INVOICED.

RECEIVING STATION.

TREATMENT.—This may arise from causes difficult to see at the receiving station—(1), from the original waggon in which the goods were loaded having, during transit, become unfit to travel and the goods having been transferred at an intermediate station into another waggon; or (2), a clerical error may have been made by a wrong number of waggon having been given on the invoice; or (3), the goods may have been mis sent to another station, and sent from thence to the right station. The receiving station should promptly advise the forwarding station, quoting the number of the waggon in which the goods actually arrived, the date and particular train, and the station from, especially when the goods have come from other than the original sending station.

FORWARDING STATION.

REFERENCING.—Reference the entry.

TREATMENT.—When necessary correct the waggon number on the invoice copy if a clerical error has given rise to the complaint. If

the matter resolves itself into a case of missending the loader who put the goods into a wrong waggon should be reprimanded, or, if a frequent offender, punished.

GOODS DAMAGED.

All cases of damage to through goods must be reported to the receiving company within twenty-four hours of its discovery, according to the practice between the railway companies parties to the through booking system.

LEAKAGE.—Damage by leakage is of two kinds—(1), damage by loss from leakage, of a quantity of liquid, creating a palpable deficiency; (2), damage by a trifling leakage of oil, sheep wash, fish brine, or other objectionable liquid, which penetrates and destroys other goods, such as tea, sugar, flour, &c., loaded in the same waggon.

PRINCIPAL GOODS LIABLE TO LEAKAGE AND TO CAUSE DAMAGE.—

Paraffin oil in casks and tins.	Sheep wash in casks and tins.
Wood naphtha, and acids.	Oil in jars and tins.
Vitriol in carboys.	Tar in casks.
Ale and porter bursting from fermentation.	Wines and spirits in casks, jars, cases and hampers.
Oil and varnish in jars and tins.	Vinegar in jars and casks.
Barm and yeast in casks.	Brine from fish and meat in barrels.
Turpentine and paints in tins and casks.	

FORMS OF DAMAGE.—Broken staves of casks—bad bungs—staved heads—dinged tins—broken jars—badly coopered casks leaking from sides—hoops of casks loosening and staves opening.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—The first object is to endeavour to trace out if there has been bad loading or violent shunting. One or other of these causes give rise to damage and leakage of goods during transit. The only way a correspondent clerk can trace out violent shunting is to watch if an undue number of breakages arise when one particular engine driver works the train, and also to have a watch kept to see if violent fly shunting is practised in the yard at the forwarding station during the making up of the trains.

Sometimes loaders commence to load covered waggons from the two ends, piling up the goods one on the top of the other, and then not having sufficient goods to fill up the centre of the waggon, the waggon thus loaded is closed up and allowed to go forward. The first heavy shunt that occurs throws the topmost packages from the two ends into the centre of the waggon, and breakages and leakages are pretty certain to take place as a consequence. Loads in covered waggons should be levelled equally over the waggon before despatch.

Many of the goods enumerated above when damaged so as to cause leakage, such leakage will most likely damage other goods in the

same waggon so that the mischief will be doubled. It is therefore best to sort such goods separately as received, and load them as far as possible in waggons by themselves, even if here and there a waggon is sent away with very much less than a fair load. We are of opinion that four-fifths of the breakages that arise are caused by violent shunting, and not from bad loading. Whenever there is a sudden increase of breakages, pressure should be brought to bear upon the train staff, and their proceedings along the line watched when taking on and dropping off waggons. Damages from shunting may be reduced to a minimum by agents reporting shunters and goods guards who make reckless flying shunts either in station yards or along the line at sidings.

When the Commissioners of Inland Revenue are satisfied that spirits or wine under bond, in large quantities, have been lost by leakage, beyond recovery, they will, in some cases, remit the duty on petition, seeing that the spirits have never reached any actual consumer. Therefore in all such cases the nearest revenue officer should be called quickly to the station to see the damaged goods in the condition as first discovered.

No specific directions can be given as to how waggons should be loaded, as it all must depend upon the goods offering for conveyance. If there are only sufficient goods to load one waggon on a particular day to one particular station, the loaders must only do the best that can be done with such a collection of goods as are offered for conveyance. It is often of service to have one or two sailors upon a loading platform, if they are men who have had considerable experience in stowing cargo on board vessels. Sometimes a good man or two of this kind can be picked up from among navy pensioners.

RECEIVING STATION.

TREATMENT.—In this kind of case the principal question is as to the character of the loading and stowage of the goods damaged in the waggon. If heavy and light goods have been loaded together mixed on the floor of the waggon, and violent shunting has taken place, tins of oil, cases of brandy, jars of spirits, or, in fact, any kind of light breakable package containing liquid, may suffer a squeeze by which it may get broken and some of the contents leak out. The receiving station is the reviewing critic to determine whether or not it is a case of bad loading. It is not sufficient to simply assert that the waggon was badly loaded, but it should be set forth in writing in what way the loading was bad and what was the particular fault.

BREAKAGES.

Description of Goods specially liable to Breakage.

Butter in crocks.	Castings, light pots, ovens, eaves-gutters, grates, &c.
Mirrors in cases.	Wine and spirits in cases and
China in cases and hamper.	hampers and jars from bad
Glassware " "	stowage in waggons, violent
Candles in boxes.	shunting, and porters allowing
Machines, sewing, washing, agricultural, &c.	cases to fall off hand trucks.

Cheese, loose.	Biscuits in boxes, crushed by heavier packages.
Eggs in boxes.	Light packages from casks being unscotched or badly scotched, rolling against and crushing them.
Glass in boxes and crates.	
Earthenware in crates.	
Marble in slabs.	
Slate "	
Furniture, packed and unpacked.	Titlers of sugar.
Bricks, slates, tiles, and drain pipes from bad stowage.	

The remarks in respect to leakage equally apply to breakages. Heavy goods should not be loaded upon light goods, and packages should not be pitched into a waggon and left on their ends or sides. The goods should be stowed orderly, with a view to compactness, one fitted into another, yet not too tightly wedged together, but closely packed to be solid as a whole, that one package will not be likely to bump against and injure another. Large mirrors should be loaded in the truck diagonally, leaning on their sides, and a carpenter or handyman should stay them by the aid of wood packing and nails. Crates of window glass travel best loaded upright. Small light castings should not be piled up indiscriminately in a heap, but the pieces of like shape sorted together and laid evenly in the waggon. Some cheese can be packed edgewise, but large soft cheese will not stand this kind of loading, and require to be laid flat on the waggon bottom, and not too many put into one waggon; in fact, the large cheese ought to be packed in boxes or carried at owner's risk. Eggs in boxes sometimes get broken by carters, who, after dragging the boxes out of their cart on to the skids at the tail of their cart, then draw the cart away, pulling the skids from under the box, which gives the box a fall on to the ground, and a breakage is often the consequence. Earthenware is often offered to the carrier in rotten old crates unfit to carry the weight. In such cases it should be refused. Porters will attempt to lift such crates with hooks, and as soon as the weight comes on to the crate the bottom falls out and there is a smash. All rickety crates of earthenware should be lifted by slings put round them.

GOODS SPECIALLY LIABLE TO DAMAGE BY WET.

RECEIVING STATION.

Sugar in bags and casks.	Cement in bags and casks.
Hoop iron becoming rusty.	Tin plates in boxes (rust).
Drapery and millinery.	Wool, flax.
Tea in chests and boxes.	Cotton and jute.
Flour, meal, bran, wheat, Indian corn and grain generally.	Guano and packed manures in bags.

TREATMENT.—This kind of damage is likely to arise when goods are loaded in an open waggon (which ascertain), and the waggon has been badly sheeted, or rain has penetrated from an old sheet with holes worn through it having been used. If a covered or box waggon was used with a tarpaulin flap cover over it, the tarpaulin may have

been defective or the roof defective. The unloader should search out the true cause and report same, and where a cover or waggon roof has been found defective the waggon or sheet should be marked for repairs, and every care taken that a second similar mishap may not occur with the same waggon or sheet. If there has been carelessness in the loading or sheeting in the case of an open waggon, the facts should be reported to the forwarding station, so that the loader may be reprimanded. With small loads put into open waggons it is often difficult to load the goods so as to make a "shoot," where the rain may run down the sheet and off on to the ground. If there are hollows in the sheet when spread over the waggon, where the rain can lodge and form a little pool, it will certainly penetrate through the sheet should it be an old sheet and somewhat worn. Fault may rest with the loader in not piling up the goods in the centre of the open waggon, so as to make a "shoot" for the rain to run off the sheet. But the fault may otherwise rest with the sheeteer, who may not have sufficiently strained down the sheet over the sides of the waggon, or neglected to tie the sheet securely, whereby a lodgment of water would have been prevented. Damage by rain to flour, hops, grain, millinery, pictures and engravings, &c., is very troublesome and leads to heavy claims. The receiving station may sometimes be able to dry the goods, and in every case should make the best of them, according to the circumstances. The sooner delivery can be made to consignee in such cases the better, so that the goods may be unpacked and the damaged portion separated from the undamaged portion. When this is not done promptly the damage and loss is certain to be very much increased. If consignee persistently refuses the damaged goods, then, in some cases, it may be wise for the station agent to so far unpack the goods as to separate the uninjured from the injured portion, to prevent the damage going farther.

Damage by wet may occur to "station to station" goods at the receiving station. Consignees' carters often remove one or two cart loads of goods from a railway waggon and neglect to replace the sheet or close the waggon door, and when they have gone away with their load, a heavy shower comes on and the goods get damaged, and the blame, of course, is then cast upon the company, if the company's servants are not sharp enough to prevent it.

FORWARDING STATION.

REFERENCING.—Reference the entry in case of claim.

TREATMENT.—If, from the information supplied by the receiving station, the checkers, loaders or sheeters appear to be at fault, they should be reprimanded or punished according as they may be found to be careful or careless men. It may be a question whether the goods were loaded under cover or not, and if "station to station" goods, whether during the time the sender was carting in the goods they got wet in the waggon from not being covered. It may also be a question whether the goods were actually delivered wet by the sender and omitted so to be signed for, or to be so remarked on invoice.

DAMAGE.—MISCELLANEOUS.

Bales cloth and Manchester packs "chaffed" or rubbed through several folds of the fabric.

Goods "chaffed" one package against another from bad stowage, putting sharp edged goods, machinery, or the like, in too close proximity to other packages, or from projecting bolts or nuts in waggon sides.

Goods burnt by ignition of fumes from inflammable oils, from loader's lamp being carelessly left in waggon and becoming overturned, by fire from hot axle, by sparks from engine igniting cotton, flax, jute, &c.

Goods damaged from being loaded in dirty waggons previously used for cattle, and not swept out and cleaned.

Fruit from pressure.

The previous remarks also apply to cases of this nature. Carefulness and ordinary judgment in the loading of the waggons will generally prevent such damages occurring, or at least will reduce them to a minimum.

GOODS UNINVOICED.

FORWARDING STATION.

REFERENCING.—Reference in goods unentered book.

TREATMENT.—Whether the report or telegram complaining of want of invoice is for one or two packages, or contents of a whole waggon, the invoices or copies of the invoices should be sent *per next* passenger train. The perverseness and idleness of some clerks lead them to treat complaints of uninvoiced goods very lightly, and to reply "invoices duly sent." This is trifling with the business of the company and the public. Very serious consequences and claims arise from delivery of goods being withheld for want of invoices. It may be wearisome to make copies of a dozen invoices that have miscarried, but it is better that something else should be allowed to stand undone, than the company should be mulct in claims for delay in the delivery of traders' goods. After the emergency has been met by the despatch of invoices, the cause of miscarriage should be sought out to prevent a recurrence. The following are a few of the causes—(1), the invoices were not made out in time; (2), some slip took place in the passage of the invoices between the invoice office and the goods guard; (3), the goods guard forgot to leave the invoices at the station for which they were intended, and overcarried them; (4), the invoices were not sent with the waggons, but sent afterwards by passenger train and overcarried; (5), the invoices were mislaid and delayed at the passenger station of either the forwarding or receiving station.

Under some circumstances with through goods on long journeys where the waggons have to pass several junctions, and the invoices pass through the hands of several different guards, the practice of nailing the invoices to the waggons has been found to work. The great objection is, the invoices in wet weather are liable to get damaged.

There is also another objection, namely, that if the waggon goes astray, the invoice being with it, the receiving station knows nothing of the matter and cannot report the non-arrival of the waggon, and all clue is thus lost until the traders complain of not receiving their goods.

When neglect or carelessness is traced, causing delay to invoices, the person in fault should be sharply dealt with for such misconduct.

RECEIVING STATION.

TREATMENT.—The first thing is to thoroughly search the passenger station and parcels office, booking office, and other offices through which letters and invoices pass; also search shunters' huts and pointsmen's huts, or other places in the goods yard where the incoming goods guard may have carelessly left the invoices. Keep up frequent telegraphic demand upon forwarding station for copies of invoices until they have been despatched or received.

CONSIGNEES FINDING GOODS DEFICIENT FROM PACKAGES AFTER DELIVERY

RECEIVING STATION.

TREATMENT.—These cases usually originate with consignee, who accompanies his complaint with a claim for the missing goods. The complaint, in fact, assumes the form of a claim and possibly of a pilferage. The receiving station must advise the forwarding station in due course, and send the claim forward to the proper officer who deals with claims. The facts to be ascertained and reported are—(1), if the package, when delivered to consignee, was to all outward appearance in good order without appearance of having been tampered with; (2), what signature is held, and whether or not a good one without remark; (3), how long after delivery before consignee notified the deficiency; (4), what chances of pilferage there were between the station and consignee's place of business; (5), the correctness of consignee's value of the goods deficient. (See Goods Stolen or Pillaged.)

FORWARDING STATION.

REFERENCING.—Reference the entry so as to easily refer to the papers if a claim is made.

TREATMENT.—Treat it in the same way as set forth in respect to "Goods Stolen or Pillaged."

MISSING CIRCULARS.

FORWARDING STATION.

REFERENCING.—Reference entry or previous correspondence to show the date the missing circulars were issued.

TREATMENT.—These should be issued promptly after other immediate sources of discovering the lost goods have been exhausted without effect. The longer you delay the issue of the missing circulars after, say, a week, a fortnight, or three weeks of the discovery of the loss, the smaller the chance of the circulars finding the goods. We have

no faith in the issue of a printed missing circular with a long list of lost goods that are missing for three, six, or nine months previously. Generally lost goods have been either stolen or mis-delivered and fraudulently retained by a consignee or small carrier, not the real owners. If the inquiry is not made when the facts are fresh upon the memory of the men the possible clue is lost. Occasionally, months after date, odd packages are turned up in dark corners of goods sheds or lost property offices, but our experience leads to the belief that these are the exceptional cases. If, therefore, there is occasion to send out missing circulars get them out early. If written by office boys take care that before despatch they are examined one by one that it may be seen they are legible, clearly written, and intelligible. The inattention so frequently paid to missing circulars at the receiving stations often arises from their illegibility.

RECEIVING STATION.

TREATMENT.—We would impress upon correspondent clerks how important it is not to treat missing circulars heedlessly and with neglect. Do not write across the forms, "not at—" without making inquiry, simply to get rid of the paper. Make each foreman, in each shed, search his shed for the particular goods missing, and initial the missing circular as a pledge that the goods are not lying in his shed. Although a hundred circulars may be issued, only one circular can get to the station where the package is really lying; your station may be that identical station, and a correspondent clerk should start with the hypothesis that the missing package has really reached his station. We have often known that when a diligent search has been made in a goods shed for a lost package, although the identical package required may not have been found, some other unclaimed package has been hunted out of some corner which nobody ever supposed could have remained there unobserved. Goods picked up on the line sometimes get astray in this manner. When goods picked up off the line are brought to a station, should no address indicate their destination so that they may be sent on, an agent should send a report of the circumstance to the goods manager the same day.

GOODS INVOICED FOR ONE CONSIGNEE OR TOWN, AND ADDRESSED FOR ANOTHER CONSIGNEE OR TOWN.

RECEIVING STATION.

TREATMENT.—This error will sometimes arise when packages of like kind get crossed. (See under "Packages of Goods Crossed.") It will also arise with eggs, fish, vegetables, and other goods, where the same baskets or boxes are frequently used backwards and forwards, because an old label may be left on the package and no new one put on, or the new label may become detached leaving the old one on the package. Another cause may be the error of the invoice clerk inserting a wrong consignee's name on the invoice. If time is an object, as at a shipping port or transshipping station, it is the safest plan to follow the direction or label on the goods, unless it is palpably an old label. In three cases

out of four the label on the goods will really be correct and the invoice entry a mistake. If there is time to ascertain by telegraph which is correct, that will be the safer course to adopt.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—On becoming acquainted with the error, if it cannot be set right by referencing the entry, the sender should be communicated with quickly, and his instructions taken as to the real consignee or town to which he desires the goods to be carried. Speed is an object in such a case, to prevent the detention of the goods and perhaps the loss of market.

CONSIGNEE OF GOODS NOT KNOWN AND INSUFFICIENT ADDRESS.

FORWARDING STATION.

REFERENCING.—Reference the entry.

TREATMENT.—If the consignment note, on being "referenced," affords no further information as to consignee's address than already inserted on the invoice, the sender must be applied to. It may turn out that the goods have been consigned in error to a wrong town. If sender's address is unknown, he being, perhaps, a travelling hawker, nothing can be done but to wait, at least for a time. The scalesman or receiving porter should be cautioned not to accept consignment notes for goods, unless bearing sender's name and address. (See "Till Called for" Goods.) Goods for London, Dublin, Edinburgh, and some other large towns, the senders should be required to put consignee's street address on the consignment note as well as on the label, and such street address should be written in the invoice.

RECEIVING STATION.

TREATMENT.—It is important that no time should be lost in asking the forwarding station for better address. If it cannot be afforded and sender is unknown, it is well, in some cases, to open the package; we have often done this and found letters, trade circulars, or other information which afforded a clue to either the consignee or sender, and thus have got rid of the charge of the goods. The last resource available is to advertise a description of the goods and their intended sale in the newspaper, headed "to whom it may concern;" and if that does not discover the owner, then the goods can be sold for the carriage and warehouse rent, assuming the goods have been held on hand for a reasonable time.

GOODS RECEIVED DIFFERENT TO INVOICE.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—These kind of cases generally turn out clerical errors, easily cleared in the process of referencing, sometimes they may

turn into cases of "crossed" goods. (See Packages of Goods "Crossed.") The men who have received the goods, and the loaders who have loaded them are in fault if there has been any discrepancy between description on the consignment note and on the packages.

PACKAGES INVOICED AS EMPTY AND FOUND TO CONTAIN GOODS.

RECEIVING STATION.

TREATMENT.—These are exceptional errors. In some country districts the senders of goods make a practice, when returning unsold goods to the wholesale houses, of declaring such packages as empty, particularly when only a few light articles are in the packages. A sharp look out should be kept by the porters who handle the empty packages to discover cases of this kind. In fact, we think, if a small *douceur* were given to the men for each case they discover, say sixpence, it would considerably quicken their eyesight, check the practice, and put money into the company's pocket. It is a mean despicable act on the part of the senders and should never be passed over lightly.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—Senders will sometimes give packages to carting agents or country carriers, telling them the packages are empty, and leaving the carriers on arrival at the railway station to make out dockets on the company's forms, declaring the packages as being empty. By deputing the act of writing the consignment note to another person it enables the real sender to protest himself an innocent person. We have known messenger boys sent with packages to a station where they get one of the company's porters to make out the consignment note for the *alleged* empty package. Before, therefore, taking any decided step, see the original consignment note, to be sure that the matter can be brought home individually to the sender either by his or her own handwriting, or that of a clerk. Sometimes a printed bill-head of sender's is used for a consignment note. By the 8 and 9 Vic., cap. 20, secs. 98 and 99, a sender giving a false account to evade payment of tolls, can be fined ten pounds for each offence. If the controlling officer of the district requires such cases to be reported to him for prosecution, it is simply sufficient to transfer the case when made complete to him. A useful plan is to print a small handbill notice (see under *False Declaration*) and forward a copy to the sender with a civil note explaining the case, and asking him what reasons he may have to advance why the act should not be put in force. The senders in reply usually write an apology, and promise that the same thing shall never occur again. Should it occur a second time with the same sender after such warning, the offending person ought to be prosecuted by the company's solicitor.

The forwarding station should afterwards keep a special watch on the particular sender who may have been discovered defrauding the company, and also generally on packages declared as empty.

Sometimes by shaking packages it may be discovered that something is in them. We have, however, known small parcels enclosed in wrapping and nailed to the side of a box, so as to prevent any shaking. If one such case comes to light at a station, it is pretty certain there are, or will be, other similar cases, because one shopkeeper will tell another how cleverly he has "done" the railway people, and he will certainly be copied, until the evil doers begin to find it dangerous and unprofitable. Forbid company's servants making out consignment notes for empty packages for irresponsible persons whose signatures, as agents, could not be brought home to the real senders.

PACKAGES EMPTY, DELIVERED TO THE CARRIER AS GOODS.

RECEIVING STATION.

TREATMENT.—This is an exceptional kind of case that will sometimes occur, and is practised by senders, with returned boxes containing wrappers, sent to Manchester wholesale houses. The sender's aim is to evade the cost of the carriage of the empty package which should be prepaid. Sender then sends the package forward, as if it were goods, and the carriage is charged "to pay." On the arrival of the package in Manchester delivery is made, and consignee refuses to pay the carriage because it is a returned empty package which should have been prepaid; sender on application persists that the package was not empty, and positively refuses to pay. Thus the company have either to bear the loss and carry the package free, or sue sender for a few pence.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—All that can be done is to keep a close watch on the particular sender for the future, when delivering light boxes, and if he tries the same thing again refuse the package unless prepaid.

GOODS INVOICED BY ONE ROUTE AND ADDRESSED BY ANOTHER ROUTE.

RECEIVING STATION.

TREATMENT.—In those cases where the receiving station is the terminal station and the final destination of the goods, the mischief of missending has been done and it is too late to apply a remedy. In many cases, however, this kind of case occurs when goods are *locally* invoiced to a shipping port, and then the receiving station (shipping port) has to assume the responsibility of taking action in forwarding the goods. At many shipping ports there is very active competition between rival carriers, and any preference shown to one over another, if against the sender's directions, causes great outcry by the carrier whom the sender intended should have the carriage of the goods beyond the shipping port. Great caution is therefore necessary to avoid subsequent complaints. The sending station should be telegraphed, for the sender may, while addressing the goods by one route have ordered them on the

consignment note by another route, and then the only readjustment can be by the sender's subsequent orders. If the invoice clerk at the sending station on his own *ipse dixit* has invoiced the goods by a route different to the address the mistake is easily amended. If time presses and neither sender nor sending station can be communicated with, then the safest course is to follow the route on the address, and advise sending station what has been done.

A like awkward kind of case also sometimes arises at shipping ports. After the goods have left the sending station, the route having been left at the discretion of the forwarding station, an active canvasser calls upon sender and gets a written order for the goods to be sent forward from the shipping port by his company's route. This order is quickly posted or telegraphed to the particular company's agent at the shipping port, and he at once applies for the goods. When the goods are only locally invoiced to the shipping port, if the order changing the route is lodged in time, it must be complied with. If, however, the goods have been invoiced through, then a diversion of this kind means an interference with the goods in transit at an intermediate station. Seeing that the acceptance of the contract of carriage has been completed, we question very much whether the carrier is legally bound to notice the subsequent order; at the same time, a desire to oblige the sender generally leads to compliance with the order. Of course the route on the invoice must be altered, and sending station advised. If the rate by the other route is different, then a new invoice must necessarily be issued.

ILLUSTRATIVE CASES OF CORRESPONDENCE INCIDENTAL TO WEIGHTS, CHARGES AND CARRIAGE.

Consignee refusing to pay charges—"paid ons" omitted—sender refusing to pay upon goods he has ordered "paid"—goods twice invoiced, through and local—recharges—consignee's refusal to pay "paid ons"—goods "paid" or addressed "paid" and charged "to pay"—goods charged at company's risk claimed at owner's risk—carriage paid in error—quotation of rates—overcharge errors, various—overcharges from wrong description, or goods being charged as undescribed—overcharges in weight—false declaration of goods—overcharges from entire loss of goods—undercharge errors, various—undercharges in weight—undercharges, false description of goods.

CONSIGNEE REFUSING TO PAY CHARGES

RECEIVING STATION.

TREATMENT.—This is probably the most frequent and most troublesome kind of case with which railway companies have to contend. It embraces a very large proportion of railway station correspondence, perhaps a fourth of the whole. The carrier's legal right is, that if the consignee refuses to pay the carriage, the carrier can withhold delivery of the goods, but the exigencies of competition are such that this course is seldom adopted, at least at competitive towns. The consignee gets possession of the goods, refuses to pay the carriage and refers the carrier to the sender. If the sender on the first application pays the

carriage, it may be said the matter goes smoothly and there is not much scope for complaint. Usually a contention arises in those cases where the goods have been sold by the sender to the consignee without any understanding as to who should pay the carriage. Both sender and consignee refuse to pay, one trying to saddle the charge upon the other. Thus the carrier, like a shuttle-cock, is sent from one to the other until the amount of the carriage has been expended in clerkage, correspondence and collector's journeys. We think the line should be drawn somewhere, and we would draw it as follows:—After one decided refusal by sender to pay the carriage and consignee being notified of same, no further goods should be delivered to the particular consignee in question, unless the carriage was paid down at the time of delivery, and when such was not done the goods should be (if carted) taken back to the station.

If the amount cannot be recovered by collection and it is too small to take into the county court, it can then only be cleared as a bad debt.

Railway companies have now a precedent in the post office authorities requiring parcels sent by parcels post to be prepaid. The same regulation applied to all goods carried by railway companies could only be brought about gradually. The first step would be to charge ten per cent. increased charge upon all goods sent forward "to pay," and this for a time, at least, would produce a large increase upon the receipts, and admit of a reduction of many clerks. It is at present within the law for carriers to do this, but when the Railway Commission becomes more powerful this may be otherwise.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—Possibly it may turn out a case of made "to pay" in error, sender either having already paid the carriage or ordered it to be paid. A recharge debit will then settle the case. If, however, sender has to be applied to, no time should be lost, and application by letter or collector should be made at once. The collector should, as far as possible, extract from sender the reason of his refusal to pay, if he does refuse, and also inquire upon what conditions the goods were sold, to see really who is at fault, whether consignee or sender.

"PAID ONS" OMITTED.

FORWARDING STATION.

TREATMENT.—The thing to be done is to collect the "paid ons." To attain moderate success in this, an early application must be made to consignee either through the receiving station or direct by a post letter to consignee. To reduce these kind of letters to a minimum, there should be some check in the invoice office, as explained under invoice "paid on" book.

RECEIVING STATION.

REFERENCING.—Reference entry.

TREATMENT.—Make a quick application to consignee and urge him to pay the amount, and if collected authorise a recharge. If,

however, the goods have not been delivered, the "paid on" can be at once added to the charges and a recharge authorised.

SENDER REFUSES TO PAY CARRIAGE ON GOODS ALTHOUGH HE ORDERED THEM TO BE MADE "PAID."

FORWARDING STATION.

TREATMENT.—This is rather an exceptional kind of case. If the goods have been made "paid" in accordance with the directions on sender's note, and when the collector applies for the carriage it is refused, sender should be pressed. There are, however, cases where sender may have made some error, and it may be an act of courtesy to apply to consignee for the carriage, which should be done, but without relieving sender of the onus to pay if the consignee declines. If sender is unreasonable and awkward, the remedy for the future is not to make his goods "paid" unless the money is actually paid at the time.

GOODS TWICE INVOICED, "THROUGH" AND "LOCAL."

FORWARDING STATION.

TREATMENT.—Without exception these are most vexatious cases and give rise to much labour and trouble. They occur chiefly at shipping ports. The goods arrive uninvoiced by the carrier who carries them to the port. He may not know, and often does not care, whether the goods are through invoiced or not. To get rid of the charge of them, and to prevent delay on his hands he delivers them as a local transaction to the next forwarding carrier or company collecting his local charges to the port. Oftentimes the carrier to the port does not know with certainty where the goods have come from, and he therefore has to charge a "guess" amount. The goods reach their destination upon the local entry, they are then delivered to consignee, and the charges paid, and next day, or some days after, the through invoice arrives, when the real charges are found to be very much more than those put upon the local entry. Consignee is asked to pay the undercharge or difference and refuses to pay, saying he paid all he was asked to pay at the time of delivery and he will now pay no more. It is useless to apply to the sender. In those cases where the charge on the local entry has been in excess of that on the through entry then the difficulty is diminished, and all that has to be done is to clear the local entry by overcharge sheet, and issue a recharge invoice from the receiving station to the port station for the "paid on" amount which should be collected from the carrier to whom it was paid out. In those cases where there is as an undercharge difference which consignee refuses to pay, it generally becomes a bad debt and is ultimately cleared by through overcharge sheet between the companies concerned, but even in this case the local entry still has to be cleared in the way before described. We have known cases where, from the total loss of the through invoice, nothing has been known of the through entry until perhaps a month afterwards when

the Clearing House check has picked up the error and a copy is furnished of the original through invoice. The only way to remedy such cases is to take up each case very sharply with the carrier in fault as it arises. Finding complaints becoming unpleasant, the carrier's next expedient may be to deliver the goods on a temporary invoice, particulars to follow. This is quite as bad or worse than the other plan, because the goods have then either to be delivered without any carriage or upon a cash deposit, or detained at the risk of a claim for detention until the through invoice arrives or a copy is obtained from the original forwarding station.

There is a practice between the railway companies parties to through booking, not to force a local intermediate invoice (where a through invoice has already been made) upon a receiving station, *within three months of the date the goods passed*. This, however, does not touch the case illustrated, because the local entry is always made within three months.

RECHARGES.

FORWARDING STATION.

TREATMENT.—The nature of a recharge is the transfer of an amount from the debit of one station to the debit of another station, charging the amount on an invoice as a "paid on" in the "paid on" column, and extending the same amount into the "to pay" column. As the forwarding station is allowed to enter the "paid on" amounts in total, as taken from the abstract summary, on to the credit side of the balance sheet, the amount is, by the recharge entry, cleared from the books of the forwarding station. The receiving station being required to enter the total "to pay" amounts on the abstract summary into the debit side of the balance sheet, the receiving station becomes charged with the recharge "to pay" amount. The transactions between station and station giving rise to "recharges," are too numerous and complicated to summarise. When a consignee refuses to pay the carriage and sender agrees to pay it, then a recharge transferring the debit from the one station to the other is necessary. When an amount is made "paid" at the forwarding station and still the consignee pays it, then, also, a recharge may be necessary. Recharges are also in constant use in the clearance of claims, where one company pays the claim and another company has to be charged with it.

There are three things most important to be done by a forwarding station when issuing a "recharge" invoice—(1), that it should bear on it the full entry and full reference to that entry which is being dealt with by the recharge; (2), what is the occasion for the recharge? and a *précis* of the facts should appear on the invoice; (3), that the authority (correspondence reference) for making the invoice should be shown upon it, which may be the receiving station's own authority, or, in the case of claims, the authority of the controlling officer of the district, or the authority of a Clearing House rule when the amount recharged is carriage on empty packages charged "to pay" without sanction or otherwise. It is a good plan at a station to confine the

making of recharges to one clerk, either the principal accounts clerk or some other experienced clerk, and hold him responsible for all errors.

It is a practice between the railway companies parties to through booking, that recharges shall always be made upon separate invoice forms, and on no account entered on an invoice bearing goods entries. If, then, a dispute arises in respect to the acceptance of a recharge, it does not occasion a goods invoice being kept out of the abstracts.

The railway companies parties to through booking recognise a practice that a recharge not invoiced within a month of being authorised by the station to be debited, the right to make the recharge lapses.

RECEIVING STATION.

TREATMENT.—It should be generally understood as a fixed rule that only one person should deal with received recharges, and he should promptly check the authority on the recharge, to see that the transfer of the debit is legitimate and is not an attempt to foist a debit wrongly on the receiving station. In past times frauds have been very cleverly carried on by station agents and clerks using recharge invoices to cover their delinquencies. Hence, a trustworthy clerk should be delegated to check recharges and clear the debits, and if he allows the station to be wrongly debited with an amount, he should be charged with same.

CONSIGNEE'S REFUSAL TO PAY "PAID ONS."

RECEIVING STATION.

TREATMENT.—The refusal to pay "paid ons" generally arises from an absence of information as to why the charge has been made, and for what service in connection with the goods it is made. "Paid ons" usually arise for (1), cartage or portorage at the forwarding end; (2), previous carrier's charges for previous transit; (3), freight from some foreign country; (4), customs or excise charges and duty. All that the receiving station can do on consignee's refusal is to write the forwarding station for particulars.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—If sender's consignment note does not afford the information required respecting the "paid on," reference must be at once made to sender for particulars and same supplied to the receiving station.

Some discretion should be displayed in advancing "paid ons" upon goods. There is no law requiring a carrier to make such advances upon goods, but in refusing to do so continuously in respect to one sender, it might with a railway company give rise to a charge of "undue preference" if a good reason could not be adduced. Cases have arisen where an advance upon goods has assumed the character of a loan, and in such a case a question might arise as to a breach of the pawnbrokers act. The most important point is, that the sum

advanced should not be equal to the value of the goods, for if consignee refuses the goods the sender having secured the value will most certainly follow suit, and then the carrier finds the goods left upon his hands to sell, and in doing so he is nearly certain to suffer a loss. Advancing large sums for duty and freight on goods from foreign countries is very risky and objectionable, but where it has grown into a practice, as is the case at many seaport towns, it is difficult to make any alteration. In such cases it is usual to show in detail on the margin of the invoice how the "paid on" is made up, and this often saves disputes and correspondence. It is a practice at some towns not to pay out "paid ons" over five pounds, until several days after despatch of the goods, when an advice has been obtained from the receiving station saying that consignee has paid the amount. This is a safe course for an agent to adopt in any exceptional case where any doubt arises. When goods are not up to sample or to the satisfaction of a consignee, he will sometimes send the goods back, and raise the down carriage as a "paid on," which breeds contention, because the original sender will insist that the company had no right to advance the money. The only safe plan is to hold the goods until the carriage is paid. Country carriers often demand and obtain exorbitant sums as "paid ons," which the consignee refuses to pay. The only way to keep such extortioners in order is on subsequent occasions to refuse to pay out to them any money for "paid ons," and this plan gradually relaxed moderates their extortion in the future. (See "Paid ons" under Invoicing).

GOODS "PAID" OR ADDRESSED "PAID" AND CHARGED "TO PAY."

RECEIVING STATION.

TREATMENT.—These are troublesome errors. The receiving station, in the event of goods being addressed "paid," is not entitled to withhold delivery of the goods for the carriage. If consignee refuses to pay, then the goods must be delivered, leaving the carriage an open question. The practice between the railway companies parties to through booking is, that the receiving station may recharge the carriage to the forwarding station, provided the address card marked "carriage paid" is attached to the recharge invoice.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—If the goods have been made "to pay" in error, the matter is easily settled by authorising a recharge. If the goods have been received addressed "paid," and the carriage has not been paid, and sender has no ledger account, then the carriage should be at once collected. In all probability the words "carriage paid" will not have been written upon the consignment note, or the invoice clerk would not have invoiced the goods "to pay." The receiver or scalesman will most likely be the person in fault for not correctly comparing the address with the consignment note. His duty would have been

to refuse receiving the goods, unless the person offering them either erased the words "carriage paid" from the address card, or actually paid the carriage. The receiver should be reprimanded, and if the carriage should prove irrecoverable, he should be charged with some portion of it, or if a small sum made to pay the full amount.

Invoice clerks are so much in the habit of generally making goods "to pay" they often make consignments "to pay" when the carriage has been actually "paid." Such mistakes irritate traders very much, many of whom are half inclined to think such cases are "accidentally done on purpose" for the pecuniary benefit of the company's clerks. These errors should be quickly remedied, and the money that has been twice paid refunded at once, as may be required, either to the sender or consignee, giving them as little trouble as possible. The money should be sent either by a collector, post office order, postal order or stamps, and the trader not put to the trouble of calling at the station for it. A rough check book of some description, same as recommended under "paid ones omitted," should be kept in the invoice office to prevent errors of this nature.

GOODS CHARGED AT COMPANY'S RISK RATE INSTEAD OF OWNER'S RISK RATE.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—It is simply a question whether the goods were consigned at "owner's risk" and whether the transaction, as a whole, amounted to the sender making a *special contract* for the carriage of the goods at the lower (owner's risk) rate. If the company's "owner's risk form" was filled up and *duly signed or "crossed"* by sender or his authorised representative delivering the goods, then the goods should have been charged at the "owner's risk" rate. Judges in law courts are very precise, and unless this formality has been gone through, they will not hold the company harmless in case of damage. Furthermore, the law has now got to that stage, that unless sender has a free optional rate, at the company's risk, offered him, and such company's risk rate is *untrammelled with any condition whatever*, the *special contract* is held not to be a free undertaking. Sender may afterwards contend that he was coerced to take the lower rate and had no fair option, and then in spite of the note having been signed by him the company will be held liable. Seeing that the judges of the land are so precise, and many senders are so unprincipled, the signing of the "owner's risk" note must be a very precise transaction, not done in the hurry of business, but deliberately and almost like signing a will or a lease. However inconvenient this may be during a pressure of business, the company will not be safe unless this act of making the *special contract* is done by the sender deliberately, and with a full knowledge of what he is doing and the conditions to which he is subscribing his name. If he does not read the usual conditions the company's clerk should read them to him.

In some cases the senders remark on their consignment notes 'owner's risk' or some such remark; great risk is involved by acting upon this injunction. If, in case of a trial, the sender admits that he knew there were two rates and he marked the docket designedly, the court may then accept it as a "special contract," provided *sender has signed the note*. Many printed forms of consignment notes used by senders are never signed, and hence are utterly valueless to form the basis of a special contract. The Railway Traffic and Canal Act, 17 and 18 Vic., cap. 81, sec. 7, of 1854, distinctly lays it down that the special contract must be *signed by sender*. This was the omission in the case of *Peek v. North Staffordshire*, which case was carried to the House of Lords, where the company was beaten. Our opinion is that no company should accept anything short of their own printed form of contract, and recognise no other form to constitute a special contract.

Senders or their clerks, from forgetfulness or neglect or otherwise, sometimes let goods go forward at the company's risk rate, and afterwards beg for a reduction to owner's risk rate and a refund of the difference in charge. If it is done as a favour in one case to oblige a trader, it should not be done a second time for the same trader, or the practice will grow until the company's risk rate will be whittled down to an owner's risk rate. It is absurd, after the company have stood the risk, to give up the insurance premiums, for if anything had happened to the goods the sender would have insisted upon compensation, and made it appear he had quite intended the goods should travel at the company's risk or at their common law liability as insurers.

A note should be made in the margin of invoices, when goods are invoiced at owner's risk, to prevent the receiving station making an undercharge and advancing the rate to that at company's risk.

CARRIAGE MADE "PAID" IN ERROR

FORWARDING STATION.

TREATMENT.—This is a class of error not very frequent. The prepayment of goods at stations is rather the exception than the rule, and therefore invoice clerks are more apt in error to make goods "to pay" rather than "paid;" however, at times, from a slip of the pen or an illegible consignment note or otherwise, it does sometimes arise. The right thing to be done is to write the receiving station to collect the amount from consignee and authorise a recharge.

QUOTATION OF RATES.

FORWARDING AND RECEIVING STATION.

TREATMENT.—The quotation of rates to the public should always be done in writing. So many persons make mistakes when speaking of figures that it prevents disputes to quote the figures in writing. Accuracy is most important as the company is pledged by the quotation whether the right or wrong rate is quoted. Clerks are also more

careful and make less mistakes when they write the quotation, knowing that they can afterwards be held to it. The printed form in use by most companies should be issued, as the difference in charge for packages under 500 lbs. weight, is prominently shown on it. When the rate is "station to station" it is important to set it down accordingly.

By the Regulation of Railways Act, 1873, 36 and 37 Vic., cap. 48, section 14, every railway company is required to keep a Public Rate Book at each station. (See Public Rate Book under Acceptance of Goods.)

From January, 1883, the English classification has been on sale to the public, and any person obtaining the class rates between any two stations is afforded such information, that the inquiries for rates are likely to be greatly diminished.

It is well at each station to confine the quotation of rates to one clerk, and it is a duty best fixed upon the chief invoice clerk, whose hourly duty, in connection with rates, should make him the most experienced therein.

OVERCHARGES.

Errors.

From repetition invoice entries.
In classifying goods.
From empty packages being charged as goods.
From goods being separated in loading and charged as separate consignments.

Errors.

From wrong addition of invoice totals.
From "paid ons" put in "paid" column.
From empty packages being charged, which should be free.
From goods being sent to one station and invoiced to another station.

TREATMENT.—The correspondence in respect to these cases principally depends upon the "referencing" of the entries and ascertaining the simple facts in each case. When the fact has been ascertained with certainty, the case is easily cleared by authorising the overcharge or by passing the sheet.

OVERCHARGES FROM WRONG DESCRIPTION OF GOODS OR THEIR BEING CHARGED AS UNDESCRIBED.

RECEIVING STATION.

TREATMENT.—Complaints of overcharges principally arise with consignee. When from the appearance of the package there is no clue to its contents, the only way to ascertain the truth is to send a person to consignee's premises to see the goods. When this is not practicable the respectability of the consignee must be considered. Forwarding station can be written to call upon sender, and ask for an inspection of sender's invoice to consignee. Consignee's complaint should be backed up by reasonable evidence to support it, and to satisfy the company that it is a just demand. If the goods have been charged as

undescribed, the fault should be fixed upon the sender for omitting to describe the contents.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—If the receiving station agent affirms that the contents of the package have been seen by a company's servant, then it may be treated as a proved case, and the overcharge allowed. If the evidence from the receiving station is uncertain and suspicious, the sender should be seen or written for a true account of the contents of the packages. (See "Packages Invoiced as Empty and found to contain Goods," and section of act respecting False Declaration of Goods). In some cases, owing to consignee's complaining to sender, the first complaint to the company may come from the sender. In either case the opportunity should be made the most of, to impress upon sender the importance of describing the contents of the goods on his consignment note, and the trouble that would be saved by his doing so in future. If loose copies of the act respecting "false declaration" are available, forward one to the sender.

Receivers or scalesmen finding goods undescribed will sometimes make a guess at the contents from the outside appearance of the package, and insert same on the consignment, and thus a "wrong description" sometimes occurs from the carrier presuming to supplement the sender's declaration.

OVERCHARGES IN WEIGHT.

RECEIVING STATION.

TREATMENT.—When these errors are found at the receiving station, and at the time of actual delivery, the evidence is then beyond question, provided the scales be in good order and true. When, however, the overcharge is first brought to light by the consignee and not until after delivery, and after the goods were unpacked and beyond further test, then considerable doubt arises. Unless consignee's complaint in such a case can be very well supported by evidence it should not be entertained. If sender's invoice is produced, showing sender's weight by which the goods have been sold, that will be good evidence. If the consignment consists of many packages and consignee can show the separate weight of each, the matter may be further investigated. The same rule as is in force when taking change at a booking office window, "that after taking up the change and going away, no complaint can be entertained," should in a measure control weight disputes. In a general way after goods have been accepted, signed for, and unpacked, no overcharge in weight should be entertained. The most unreliable traders in our experience in respect to weight questions, are dealers in rags and scrap iron, who should be well looked after. Another troublesome description of traffic with which weight questions arise is military baggage. The government allow a certain weight free of carriage to each officer and soldier, but if the gross total weight of the detachment being moved exceeds the regulation allowance, the

regiment have to pay for the excess. Officers and non-commissioned officers have invariably a weight of baggage in excess of their regulation allowance, and the shifts and expedients to smuggle excess weight free of charge would be amusing if it were not dishonest. Too frequently such baggage is delivered at the receiving station without the actual payment of the carriage being made, and then having secured possession of their baggage, the officer commanding disputes the weight. Our opinion is that military baggage should never be delivered until the carriage is either first prepaid or the payment made pretty sure by some binding acknowledgment as to the weight. The railway companies are compelled to carry military baggage at twopence per ton per mile, and have a right to be paid for every pound weight conveyed, seeing that the low rate leaves no margin for profit.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—Errors in weight invariable arise from some fault at the forwarding station, at least where proper appliances are provided by the aid of which the goods could have been weighed. With small packages there is no excuse. With large packages too large for ordinary weighing machines there is a difficulty, so likewise with timber, bricks, slates, clay goods, drain pipes, and other "station to station" goods. Where the rate is per waggon the question of weight does not arise, hence the advantage of waggon rates, while in small lots under two tons, chargeable at the class rate, it does occur. These can be weighed on a cart bridge if one is available. When the correspondent clerk has no evidence as to the weighing by the company's servants, he can only seek evidence from the sender, and sometimes this can be done by testing the weight of similar goods that may be lying in sender's premises. The mischief has been done and to a large extent the decision in the matter is reduced to a balancing of probabilities. The desirability is to frame some means whereby a similar mischance may be avoided, and greater certainty attained for the future as to the real weight of the goods at the time when same are accepted for carriage.

FALSE DECLARATION OF GOODS.

FORWARDING AND RECEIVING STATION.

TREATMENT.—These false declarations very generally arise—(1), in describing the goods contained in a particular package to be of one kind, when, in reality, they consist of some other kind, the object being, by the false description, to get them carried at a lower class rate; (2), declaring packages empty when they really contain goods, whereby the company are defrauded of part of their proper carriage; (3), making false declaration as to the weight of goods (rags, old iron &c.) to avoid paying the proper carriage. Each case has been treated under its own heading, hence it is only necessary here to give a copy of sections 98 and 99 of 8 and 9 Vic., cap. 20, which sets forth the law. It is to be much feared, now that the classification of goods has

become accessible to the public, that some few unprincipled persons will exercise their ingenuity, and false declarations in describing the contents of packages will become a more common occurrence.

8 and 9 Vic., cap. 20, sections 98 and 99.

Senders of goods by this line of railway are respectfully requested to comply with the terms of the 98 and 99 sections of the 8 and 9 Vic., cap. 20, and in all cases truly to describe the contents of all parcels of merchandise. Also, that the transmission of goods in parcels described as empties is a violation of the terms of the section, either of which subjects the senders to a penalty of ten pounds.

"Every person being the owner, or having the care of any carriage or goods passing or being upon the railway, shall, on demand, give to the collector of tolls, at the places where he attends for the purpose of receiving goods or of collecting tolls for the part of the railway on which such carriage or goods may have travelled or be about to travel, an exact account in writing, signed by him, of the number or quantity of goods conveyed by any such carriage, and of the point on the railway from which such carriage or goods have set out, or are about to set out, and at *what point* the same are intended to be unloaded or *taken off the railway*; and if the goods conveyed by any such carriage, or brought for conveyance as aforesaid, be liable to the payment of different tolls, then such owner or other person shall specify the respective numbers or quantities thereof liable to each or any such tolls.

"If any such owner or other such person fail to give such account, or to produce his way-bill or bill of lading to such collector or other officer or servant of the company demanding the same, or if he give a *false account*, or if he unload or take off any part of his lading or goods at any other place than shall be mentioned in such account, with intent to *avoid the payment of any tolls* payable in respect thereof, he shall, for every such offence, forfeit to the company a sum not exceeding ten pounds for every ton of goods, or for any parcel not exceeding one hundredweight, and so in proportion for any less quantity of goods than one ton, or for any parcel not exceeding one hundredweight, and so in proportion for any less quantity of goods than one ton, or for any parcel not exceeding one hundredweight (as the case may be), which shall be upon any such carriage; and such penalty shall be in addition to the toll to which such goods may be liable."

OVERCHARGES.—ENTIRE LOSS OF GOODS.

RECEIVING STATION.

TREATMENT.—When quite sufficient time has elapsed and all endeavours to trace the goods have proved ineffectual, and probably the claim has been lodged and paid, then the clearance by overcharge is a simple matter. Cases, however, arise where the receiving station or company has not received the goods, the consignee has made no complaint and no claim has been lodged. There is a proverb that it is better to "let a sleeping dog lie," hence there is some hesitation

in making inquiry from either the consignee or sender. Oftentimes the goods will have reached consignee indirectly or by some other route, or been delivered without signature or record, owing to the non-arrival of invoice with the goods.

In Ireland for foreign traffic between Irish railway companies and also for cross channel traffic, there is a practice between the railway companies parties to through booking as follows:—If goods have not arrived and the forwarding station cannot within twenty-one days trace them into the possession of the arrival company, the arrival company at once, without authority, passes an overcharge sheet for the "to pay" carriage and clears the debit. This refers to both missing goods and duplicate entries when the goods are not forthcoming. This overcharge sheet, however, must be issued within three months of the date of the transaction. If the forwarding company succeeds afterwards in tracing the goods into the hands of the arrival company, then the forwarding company can issue a new invoice, but must first obtain the consent of the receiving company's manager; and if not given in a month, the matter can be referred to the Claims' Arbitration Committee. This practice might be advantageously extended to England for English traffic proper.

UNDERCHARGES.

Errors in rate.

- " in totals of invoices.
- " in extension of paid ons.
- " in classifying goods.

Errors in additions of invoices.

- " from goods being errone-
- " ously charged as empty
- packages.

TREATMENT.—The correspondence depends upon the referencing to ascertain the real facts, and if the facts disclose an undercharge, it must be entered upon an undercharge invoice in accordance with the directions regulating undercharges.

UNDERCHARGES IN WEIGHT.

RECEIVING STATION.

TREATMENT.—The practice being to weigh and charge the goods at the forwarding station, the "discovery check" is with the receiving station. Taking into account the speed with which goods have to be quickly handled at the receiving station from the waggon on to the delivery cart, it is extremely difficult to discover undercharges in weight. To re-weigh all goods is quite out of the question; all that can be done is to establish a practice with the unloading clerks to continually test odd packages, selecting in turn different packages from particular forwarding stations. If one or two undercharges arise with goods from one particular station, extend the weighing of the goods from that station until greater carefulness in the weighing becomes the practice. Rags, military baggage, boxes eggs, scrap iron, and dead meat, are too frequently averaged or under-declared in weight, and the average is invariably below the true weight, so particular attention should be given to these kinds of goods. Great care should be taken when an undercharge is discovered, that a responsible clerk or foreman

should be a witness of the weighing, for if it is on a "paid" entry the forwarding station will persist that their weight was correct. When on a "to pay" entry you have only to satisfy consignee as to the weight and add the undercharge to the "to pay" amount, and direct the forwarding station to send an undercharge invoice for the amount.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—When an undercharge in weight is discovered it should be brought home sharply to the scalesman or receiver. Too frequently, to save trouble and time, sender's weight is accepted and the goods are not weighed; and if this usage becomes generally known some unprincipled senders will under-declare the weight of their goods to defraud the company. Of course one or two cases against any one sender of such bad conduct, should act as a warning to weigh his goods very finely for the future. Many kinds of articles, such as ale in casks, grain, guano, deals and others, are taken at a standard average, but now and again it is well even to test these averages. Guano in bags, especially the foreign kinds, will vary in weight every year. If undercharges in weight on "paid" entries cannot be recovered, the receivers or scalesmen should be made to pay part or the whole of the amounts if there be evidence of great carelessness.

In gross cases of under-declaring the weight by sender, where the object to defraud the company is unmistakable, the officer of the district should be advised that sender may be prosecuted. (See False Declaration of Goods.)

UNDERCHARGES FROM FALSE DESCRIPTION OF GOODS.

RECEIVING STATION.

TREATMENT.—The cases the receiving station will hear of, is when the false description gives rise rather to an overcharge than an undercharge. Yet there may be some cases, where from a knowledge of the consignee's business and the goods in which he deals, an odd case may be detected. When such does occur the utmost possible should be made of it against the sender, and payment of the undercharge insisted upon, either from sender or consignee.

FORWARDING STATION.

REFERENCING.—Reference entry.

TREATMENT.—There is no doubt but that from a laxity in requiring specific declarations of the contents of packages, railway companies are frequently over a period defrauded of large sums of money. Senders are not required to be precise in declaring goods; in fact, too frequently they make no declaration at all of the contents of packages, while the invoice clerks knowing each sender's particular trade charge accordingly. Certainly there are cases where the sender, a manufacturer, makes only one description of goods, and the assumption that his packages contain such particular goods is pretty correct; but on the whole there is too much guessing at what the

packages contain according to the trade of the person who is the sender. In Ireland the country shopkeeper is often both a grocer, draper, and drug seller, ironmonger and every other trade combined, and the contents of his packages often pass as "hardware" and contain something specified in all the classes. This same difficulty must also arise in all agricultural country districts, and there really seems no practical remedy for it.

Senders where they do specify the contents of packages have always displayed great diligence in discovering the most expedient phrase to use in declaring their goods, so as to get them carried at the lower rates; now they have the classification to study, they will no doubt improve on the past.

On referring to *false declaration* it will be seen that the companies are amply provided with legislative protection, and all that is necessary is evidence to prove a case. When this is forthcoming the controlling officer of the district should be supplied with the particulars for him to use his discretion in respect to a prosecution.

Where senders, by a clerical error, have omitted to describe the goods on the consignment, while the appearance of the packages indicates the description of the goods as boxes of tea, soap, candles, &c., the receiver should remark same on the note.

GOODS CLAIMS AND LEGAL DECISIONS.

Carrier is entitled to his carriage although he may have damaged the goods—damaged goods, survey upon—owner of goods to sue—damaged goods, general—leakage—damage to iron by rust—damage or loss by fire—damage by rats or mice—for deterioration—for delay—measure of damages—pillages—damage from the act of God—where the Carriers' Act is protective—articles in Carriers' Act, articles outside Carriers' Act—exhibition of Act—senders' must first declare value—special contracts at owner's risk—damage from unsafe waggons—damage from negligence of carriers' servants—damage of goods, and refusal in consequence.

A STATION agent reporting on claim cases occupies a somewhat analogous position to that which a solicitor does to a barrister, when the former prepares the facts for the barrister's brief. To draw a brief entails the making of a very careful and complete collection of all the evidence likely to prove serviceable for the defence. Mixed up, however, with the investigation of railway claims, and outside the legal aspect is an inquiry that must be made by the agent as to whether there was any failure in the performance of the work, and if so, with whom such failure occurred; thus an agent's report upon a claim too frequently assumes the form of a defence of the acts of the men at the station, rather than a fair statement and unbiassed collection of the whole facts. Prominence may be given to insignificant facts if they cover the fault, while other important facts material to the company's legal defence may be unintentionally omitted, or only slightly treated, self-preservation being the first law of nature. We fear there is no available remedy for this state of things, though discipline requires that faults should be brought home to men who commit them, and it is consequently difficult to get an agent, when reporting upon claims, to treat the two features of each case separately. With a view, however, of affording an opportunity for this being done it is intended to supply here some of the legal features bearing upon particular kinds of claims; thus it is hoped some agents may be led to shape the collation of the evidence in such a form as will support some suitable and reasonable line of legal defence, whereby the company, when really not liable, may be freed from the claim, and be successful in defeating the claimant in court.

Good judgment is requisite in collecting evidence, so that all the points may be distinctly shown, and yet only such matter introduced as circumstantially relates to the question at issue. A careful view of the case must be taken, so that the investigation of the facts may be started upon that division of circumstances out of which the claim originates. After the primary facts have been acquired from this starting point, the mind will then expand and grasp the outside

relative circumstances. In order skilfully to deal with claims it is essential to have an aptitude for sifting evidence, so as to cull the strong points that fairly and justly offer grounds for contest.

When paying a claim for damage, the company's carriage, if unpaid, should be deducted, as the carrier can legally recover his full carriage although the goods may have suffered injury and depreciation in value.

Having thoroughly grasped the bearings of a claim it is essential to view it in two aspects—(1), politic; (2), legal. If a claimant is a good contributor of traffic and can avail himself of an opposition conveyance, it may be suicidal, for perhaps a few shillings, to decline his claim and so offend him. This, however, is sometimes done upon the foolish and illogical argument, that the claim should be declined "on principle." This is a phrase constantly in vogue with claims' clerks, so that it would almost appear they use it at times as a figure of speech in happy oblivion of its meaning or applicability. If a claim amounts to several pounds, it may be then of sufficient importance to allude to the principle that may pervade it, but when it is only for a trifling amount, to speak of the principle at stake is rather to quibble and evade. Avoid the phrase "on principle" and decline the claim for some tangible reason, if it is not a reasonable claim to pay. If a trader makes a heavy claim and quotes as a reason why it should be paid, that on a previous and similar occasion a small claim was liquidated, it is then time to explain the "principle" feature. Where there is no policy involved, that is, where the claimant is only a chance contributor of traffic, or where he is unable to avail himself of an opposition conveyance equally desirable, it may be well to consider the legal bearings of the case; and if the claim is unjust or exorbitant, to take advantage of a legal point to refuse to entertain it.

Agents are frequently requested by consignees of damaged goods to call and inspect the damage. This is very fair for both sides, and amounts to the holding of a survey upon the goods to elicit the extent of the damage and the probable money loss. Whether the agent or one of his clerks attends to assist at the survey, caution should be exercised that the consignee neither intentionally nor unintentionally extracts from the company's officer *any admission of liability*. Admit as little as possible and get as much information as possible from consignee, as to the invoice price of the goods and the amount of weight or measurement of the damaged goods. In some cases, particularly with broken eggs, do not wait for the consignee to send, but let a clerk or foreman go to consignee's place of business to wait the arrival of the goods by the cart and see them unpacked and counted. Bad cases of damage or pilferage are not likely to be condoned by the consignee, and it is better to take the initiative in ascertaining the extent of the damage, rather than wait for the consignee to take the initiative.

To take legal proceedings a claimant must be the legal owner of the goods, but the ownership largely depends upon the private contract of purchase between the sender and consignee, so that it is difficult as

times for the carrier to know who is the legal owner. In a general way the consignee is the legal owner of the goods when they have passed into the carrier's hands, and it does not matter who pays the carriage. The consignee is the right person to sue the carrier, but the courts will allow the sender to sue as the agent of consignee. Where the goods have been invoiced through by a previous company, the receiving company can decline consignee's claim, not on the question of legal ownership of the goods, but because the contract was made with the forwarding company. The consignee can sue the forwarding company, but seeing that in many cases the forwarding company is too far away for convenience, it then falls to the lot of the sender to sue, on consignee's behalf, the forwarding company with whom the contract was made. Where the forwarding company contracts to carry beyond its own line, the other companies over whose lines the goods may pass are legally only the "agents" of the forwarding company, and legally are only amenable to the forwarding company, and not to either consignee or sender.

During the investigation of claims it is not sufficient simply to trace what was done and what ought to have been done. It is of importance to learn, in addition, the particular person or persons who neglected to do what ought to have been done, or who did what he or they ought not to have done, also whether there was a lack of system to assist in producing correctness. *Half the utility of investigation is lost if the sustaining of the system and the improvement of organisation are not coupled therewith.*

CLAIMS FOR DAMAGE.—The first point to raise and satisfactorily determine, is the condition of the goods at the time the carrier accepted them and made the contract of carriage. If a receipt without remark has been given, that point is soon settled, and it must then be held that the carrier received the goods in good order—if the goods were carried under a special contract that may form a defence. (See Special Contract.)

GOODS BADLY PACKED OR NOT PACKED AT ALL.—If the bad packing was observable at the time the carrier accepted the goods, then the acceptance is taken to have been with the full knowledge of the bad packing, and the carrier will be held responsible for the damage, because his remedy was to have refused to carry the goods as being unfit to travel safely from bad packing. This refusal he is justified in making, and it is the protection given him by the law. If packages are outwardly in good order and so signed for by the carrier, should a breakage of the contents subsequently occur and bad packing can be proved, the carrier will be free from liability, but it rests on him to satisfy the court that it really was a case of bad packing. Where furniture is delivered, as often happens, not protected by hay bands or in any other way, and *the sender is warned* at the time and a conditional receipt at "owner's risk" given, the carrier would be free from liability for breakage. A contest may arise as to what is or is not bad packing, and hence, in particular cases, an agent

should see the goods himself and make sure, before he acts decisively, that the facts warrant the course he decides upon.

LEAKAGE.—If the leakage occurs, which it usually does, from bad loading and from casks not being scotched in waggons, the carrier then has no defence unless there be a special contract. If the leakage can be proved to have occurred from bad packing or bad packages enclosing the goods, as in the case of hampers of wine, or from badly made tins, in the case of tins of oil, varnish, &c., the carrier can plead bad packing as a defence. Should the leakage proceed from casks of ale, wine, barm or other commodities liable to fermentation, the carrier cannot be held liable for damage from deterioration or the natural vice of the goods. Even in cases of leakage where the fault may rest with sender for using a bad cask, still the carrier is held liable by law to act as a reasonable man would do with his own goods, in endeavouring to stop the leakage by cooperage, or otherwise to do what a reasonable man would do to save what he could under the circumstances. In cases of fermentation of ale or barm, if the casks were unduly exposed by the carrier to the sun, it would be a point in claimant's favour and against the carrier.

DAMAGE BY WET.—If hoop iron is damaged by rust, produced by "sweating," the carrier is not liable for the "natural vice" inherent in the iron. If, however, there has been delay, it then becomes a doubtful question, as the point will turn rather upon the delay than the natural vice. No exact case is upon record. *Bull v. Robison*, tried in Court of Exchequer, July 7, 1854, is nearly in point, but there the iron was carried by canal and the boats were delayed some weeks by frost. The carrier there was held not liable for the rust arising from the "sweating." In a general way a carrier has no legal defence to clear himself from the consequences of damage by wet in the absence of a special contract.

DAMAGE BY FIRE.—In like manner to damage by wet the carrier has no legal defence for goods burned unless there is a special contract, or unless the contract for carriage has terminated and the goods are held as warehousemen. If goods are charged at *carted rate* and are burned in the carrier's warehouse at the receiving station before delivery is effected, the carrier is liable, because the contract of carriage has not been completed. If, however, the goods are conveyed at "station to station" rates and consignee has been advised of their arrival, and a reasonable time has expired for removal of the goods, then the carrier is not responsible if the goods are *accidentally* burned, because the contract of carriage ended at the station after notice of arrival. In cases of goods on hand "till called for," if forty-eight hours shall have expired after their arrival and consignee has not applied for them, the carrier is not liable if they are *accidentally* burned. When the carrier receives goods into his warehouse *to carry*, and before he carries them, they get burned, the carrier is then liable, because they were in course of transit and were held under the

contract of carriage. If sender *has signed* a carrier's printed form of consignment with a notice that the carrier will not be liable for fire, and if a knowledge of that notice can be legally brought home to sender it may exempt the carrier, provided the judge should hold that that which may have passed between the parties was sufficient to constitute a special contract under the Railway and Canal Act.

DAMAGE BY RATS AND MICE.—A carrier is responsible for this damage if it occurs while the contract of carriage continues. A warehouseman is not responsible for this damage if he keeps cats and traps, and takes ordinary precautions as a careful man. The carrier is an insurer while the warehouseman is not—thus with a carrier his responsibility depends upon whether, at the time the damage occurred, the court may hold him to have stood in the one or the other capacity. The remarks in respect to fire equally apply here, as to whether the contract of carriage was running and in force or not.

DAMAGE FROM NATURAL VICE.—This will form a good defence, provided the facts can be proved. Ale or barm bursting the casks from fermentation are cases in point. Fruit packed together, and the weight of one portion damaging the other, is a damage arising from its natural vice. New cheese, loose, becoming damaged from its want of solidity is another case. Horses and cattle taking fright and injuring themselves, is held to be natural vice in the absence of negligence. Hoop iron "sweating" and becoming rusty, again illustrates the point. Wherever the rule in other cases can be fairly applied in cases of damage, it is a defence which will relieve the carrier of liability, if the claimant cannot prove negligence on the carrier's part contributing to the damage.

In *Blackmore v. Lancashire and Yorkshire* (1858), potatoes to the value of seventy-five pounds had been spoilt by fermentation, owing to delay at Wigan from deficient sidings. Justice Mellish said—"I shall hold the company are bound to carry, with reasonable expedition; and if their course of business is inconsistent with reasonable expedition it is no answer to the action." Judgment against company.

DELAY—(GOODS).—The carrier is not liable by law to carry in any stipulated time. He must carry in *reasonable time*, and the definition of reasonable time is, in the time that from usage or custom has become a practice. If the claimant can establish in a case of delay, a variation in time from the ordinary practice he will have a strong case. The carrier must convey by the *next available train* going to the particular place and by which such traffic is customarily conveyed.

A carrier is not compelled to convey goods by a particular time for some particular event like a show, fair or race; but if he accepts the goods with an injunction that they are required at the destination for such event on a particular day, then, parole evidence between sender's man and the company's receiver will constitute a special contract, and the company will be held liable for any delay. Judge

Lush laid down the law very clearly in the case of *Woodgar v. Great Western* as follows:—"If you want to make a carrier liable for negligence in delivery of goods, you must give the carrier notice of what you want the goods for, that you want them at a given town by a given day, then you put him on extra care. It has been long decided that if you deliver a package to a carrier to carry, without telling him of any extraordinary consequences that will ensue to you if it is not delivered by a given time, you cannot recover any special damages arising from the delay."

The case of *Hadley v. Bazendale* quoted under damage also applies to delay.

In *Le Peinteur v. South Eastern* (1860), French kid skins to make two hundred pairs gloves were delayed fourteen days. Claimant sued for six pounds actual damage to the skins, seven pounds ten shillings workmen's wages, fifty pounds profit owing to loss of sale. The Court of Queen's Bench held that the six pounds could be recovered, but that the other two items being consequential damages were not recoverable, being too remote.

In *Wilson v. Lancashire and Yorkshire* (1861), cloth to make caps was detained from March 15 to April 12, and when it arrived at the destination the period had passed for making caps for the spring season, and hence the cloth was worth only one hundred and thirty pounds instead of two hundred and thirty pounds. The judge told the jury that in calculating damages, they might take into consideration "the loss of the season," verdict eighty pounds. On appeal, Justice Williams seemed to think the expression "loss of the season" somewhat equivocal, and the damages were reduced to forty pounds.

In *Wren v. East Counties* (1859), the action was for thirteen pounds for four hours delay to fish—Yarmouth to Hitchin. The company, although carrying at goods rates, had established the "custom" of using a passenger train for part of the journey. In this case, however, the fish was not sent on by the passenger train but by a goods train. The company were held liable. Hence by creating a "usage" in the acceleration of goods the carrier sometimes makes a whip for his own back.

In *Sharp v. North Eastern* (1866), fresh plums, Wetherby to Colne, were too late for the Colne market on the Saturday. At Leeds the plums had to be transferred from the North Eastern Company to the Midland Company. The plums were not booked through, but the Wetherby agent had remarked on invoice "forward immediately, wanted for market on Saturday morning." Chief Baron Pollock held there was negligence, and that after arrival of the North Eastern train at Leeds so early as 5.45 p.m., there was time to transfer the plums to the Midland station for the 8.0 p.m. train to Colne same night. The judge was told the business of delivering ceased at 6.0 p.m. at the North Eastern station. Judgment, however, was given against the company.

MEASURE OF DAMAGES IN THE CASES OF DELAY, LOSS, OR DAMAGE.—Having taken in the leading features of a claim, and

satisfactorily arrived at the conclusion that a right of claim exists, it then becomes a question to compute the fairness of the amount. This is generally a difficult question to determine, because the facts bearing upon the make up of the claim are hard to acquire, owing to their technical relation to the claimant's business. That which to a casual observer appears to be an injury to goods may in reality be little or no injury, because it does not impair their utility for the particular purpose to which they are intended to be applied. Litigious traders, however, avail themselves of a trifling fault upon which to base a claim when actually they have sustained no loss. To estimate the justness of the amount of a claim it is needful at times to dive into the technicalities of the claimant's business a little, and question the grounds which are said to have occasioned the alleged pecuniary loss. Inquiring from traders or merchants in the same line of business as to the price of similar goods on same date, is at times necessary and useful. Prices current and market quotations of prices of goods are also of service for reference and comparison.

The value of goods, in respect to compensation, must be taken on their value at the *place of delivery*, not at the place of their acceptance by the carrier.

"It is the value of the article at the place of delivery that the claimant relying on the carrier has lost. It is that value which claimant would have received if the contract had been performed. If the goods have been transported by the carrier, he is entitled to deduct his freight, but if he does not perform any part of the contract, then the difference between the value of the article at the place of shipment and at the place of delivery furnishes the measure of damages, deducting, in this case also, the freight or price of the carriage." —SEDGWICK.

Consequential damages in excess of the value of the goods cannot, in a general sense, be recovered, and only in very exceptional cases where the damage suffered has been very direct. The law on this point is defined in *Hadley v. Baxendale* (1854), where it was held—"When two parties have made a contract which one of them has broken, the damages which the other party ought to receive, in respect of such breach of contract, should be such as may, fairly and reasonably considered, either arise naturally, *i.e.*, according to the usual course of things, from such breach of contract itself, or such as may reasonably be supposed to have been in the contemplation of both parties at the time they made the contract, as the probable result of the breach of it."

In *Collard v. South Eastern* (1861), eight pockets of hops were damaged by wet. The company paid the estimated loss by wet (£7 14s. 3d.) of 8 lbs. per pocket, into Court. Plaintiff proved it took from October 29 to November 10 to thoroughly dry the hops, which, being marked by the excise, he dared not unpack. During this time the market price fell to the extent of sixty-five pounds. Baron Martin said—"If that is not a direct, immediate, necessary and essential consequence of the breach of contract by the company, I cannot understand what is."

One of the grounds upon which consequential damages are not allowed by law is, that claimant could have purchased other goods to replace those lost or missing, and hence no occasion would arise for contingent expenses.

If sender declares horses at ten pounds value to get them carried at owner's risk, should they be killed he cannot claim at a higher rate than ten pounds, although he may actually have paid more for the horses.

LOSS AND THEFT.—In a general sense the carrier is responsible for all loss and theft, that is, being an insurer he is responsible for all goods confided to his care, with, however, some exceptions—(1), the act of God or the Queen's enemies; (2), where goods of a certain description, as specified in the Carriers' Act, are over ten pounds in value and the value is undeclared.

The act of God must be something the contrary of the act of man, such as lightning, tempest or general floods.

The following are the exceptional articles specified in the Carriers' Act of 1 Will. IV., cap. 68, section 1:—

"Trinkets and jewellery, furs, glass, silks in a manufactured or unmanufactured state, and whether wrought up or not wrought up with other materials—maps, watches, clocks or timepieces, orders, notes or securities for payment of money English or foreign, paintings, engravings, pictures, title deeds, writings, gold and silver coin of this realm or any foreign state, precious stones, clocks or timepieces of any description, stamps—bills, notes of the governor and company of the banks of England, Scotland or Ireland—bills, notes of any other bank in Great Britain or Ireland—gold or silver in a manufactured or unmanufactured state, gold or silver plate or plated articles, china, lace."

Outside these particular kinds of goods the carrier has no protection when goods have been lost or stolen while in his care; but if the lost or stolen goods comprise any of the above, and *are in value over ten pounds*, and the sender has not declared the value to the carrier, then the carrier is protected by the law. This protection was given to the carrier in the old days of road carriage and stage coaches. In these old days bankers sent their notes and specie by road carriers, and a carrier might have a small parcel that could be carried in a coat pocket delivered to him for conveyance, containing money amounting to several hundreds of pounds. It was fairly considered that a carrier should know when he was conveying parcels of great value, that he might take special care to insure their safety; and hence the Carriers' Act.

It is probable there never was an Act of Parliament that entirely took away from persons the opportunity of continued appeal and contention, and the Carriers' Act is no exception to this rule. Contention has arisen in respect to many articles being within or without the Carriers' Act. The following articles have been held to be within and covered by the Carriers' Act:—

"Ivory bracelets, ornamental shirt pins, brooches, portmonnaies, tortoise shell ornaments, pearl ornaments, ladies' scent bottles, silk

guards, watch guards, as being trinkets and jewellery—glass converted into mirrors, elastic silk webbing, silk dresses made up, silk hose, raw silk, maps, ship's chronometer, artists' sketches, frame of painting held to be part of picture, authors' manuscripts."

On the other hand the following articles have been held to be outside the Carriers' Act, and the carrier is afforded no protection in respect to such articles by the Carriers' Act.

"German silver fusee boxes, hat bodies made partly of fur from backs of rabbits—bill of exchange, no drawer's name on it and not a negotiable security—painted designs for carpets and rugs—gilt frame enclosing a 'Lace Corporal' of over ten pounds value, sent in said frame to be shown at an Art Exhibition. (Machine made lace, 28 and 29 Vic., cap. 94, section 1 of 1865)."

The Carriers' Act holds the carrier responsible for loss of goods over ten pounds, though the value was *undeclared*, provided it can be shown that the carriers' servant committed felony and stole the goods. This exception has been prolific of many trials. The law on this point was clearly defined in the case of *Great Western v. Rimell* (1857). A box of watches was believed to have been stolen. Chief Justice Jervis, on appeal, condemned the County Court Judge for leaving the question to the jury, and said—"It is the duty of the judge to withdraw the question altogether from the jury, where there is no evidence to prevent them, if I may say so, from misconducting themselves by finding against the company, which they are always ready to do." Justice Cresswell said—"A mere suspicion that the loss has arisen by felony is not sufficient, it must be proved that it actually did so arise."

The Carriers' Act requires that the carrier shall exhibit a notice (copy of Act) in his office or at *the place* where he receives goods from the public, but the first act of declaring the value of the goods must originate with sender, as decided in *Hart v. Barendale*. In this case defendant's cart went to plaintiff's warehouse to take up the goods which were silk, over ten pounds value, and not declared. On appeal, Judge Patteson said—"I think the act requires the person who sends the goods to take the first step by giving that information which he alone can give, then the carrier may charge an additional price, but he can only charge the price notified and in his office."

SPECIAL CONTRACTS.—The right of common carriers to make special contracts with their customers dates back for very many years. With carriers other than railway and canal companies acting as common carriers, this right still exists as of old, but the Railway and Canal Act, 1854, 17 and 18 Vic., cap. 31, section 7, limits and controls this right of special contract in respect to railway and canal companies carrying on their own railways and canals.

Justice Story defines the old right as follows:—"We come next to consider the effect of special contracts and notices of carriers. It was formerly a question of much doubt how far common carriers on land could, by contract, limit their responsibility upon the ground

that, exercising a public employment they are bound to carry for a reasonable compensation, and had no right to change their common law rights and duties; and it was said that like innkeepers, they were bound to receive and accommodate all persons, as far as they may, and could not insist upon special and qualified terms. The right, however, of making such qualified acceptances by common carriers, seems to have been asserted in early times. Lord Coke declared it in a note to *Southcote's case* (4 Rep. 84), and it was admitted in *Morse v. Slue* (Vent. 238). It is now fully recognised and settled beyond any reasonable doubt. Still, however, it is to be understood that common carriers cannot by any special agreement exempt themselves from all responsibility so as to evade altogether the salutary policy of the common law. They cannot, therefore, by a special notice, exempt themselves from all responsibility in cases of gross negligence and fraud, or by demanding an exorbitant price compel the owner of the goods to yield to unjust and oppressive limitations of his rights, and the carrier will be equally liable in the case of fraud or misconduct of his servants as he would be in case of his own personal fraud and misconduct."

Railway and canal companies acting as common carriers are restricted in the making of special contracts for carriage by section 7 of the Railway and Canal Act, 1854, as follows:—

"Provided also that no special contract between such company and any other parties respecting the receiving, forwarding, or delivering of any animals, articles, goods, or things aforesaid shall be binding upon or affect any such party unless *the same be signed by him* or by the person delivering such animals, articles, goods or things respectively for carriage:

"Provided always that nothing herein contained shall be construed to prevent the said companies from making such conditions with respect to the receiving, forwarding and delivering of any of the said animals, articles, goods or things as shall be adjudged by the court or judge before whom any questions relating thereto shall be tried to be *just and reasonable*."

Thus a public notice, unless it be *signed by the trader*, does not constitute a special contract; and furthermore, any contract that a judge may hold to be *unjust and unreasonable* is not binding. If the words "owner's risk" are written on sender's consignment, and the consignment is *signed by or for the sender*, it will constitute a special contract, *provided* sender admits, or it can by evidence be brought home to him, that he knew there were two rates, and he designed to avail himself of the lower one, the "owner's risk" rate. Seeing that this affords a loop hole for contention it is the better plan to insist upon the company's printed form of risk note being always filled up when goods are to be carried at owner's risk.

The feature of uncertainty is introduced into all special contracts by the power given to a judge to declare any contract "unjust and unreasonable." This has opened a wide field for contention. No condition can be affiliated to the carrying at company's risk, or such condition may be held to be a "special contract," and then the trader

is allowed no option or alternative, because both contracts offered by the company are held to be "special contracts," and the trader is thereby debarred from exercising an option and having his goods carried under the companies' common law liability. In like manner if the money difference in the company's risk rate and the owner's risk rate is *unreasonable*, then it has been held the trader did not get a fair option and practically was coerced into acceptance of the owner's risk rate, and hence the conditions were "unjust and unreasonable."

A company is responsible to supply a safe vehicle for conveyance, and injuries arising to cattle or goods from a vehicle that is not safe, the company is responsible to make good in spite of any special contract.

In some cases of delay the companies have been protected by the special contract, and in other cases the special contract has been held as no protection. The special contract does not get rid of the rule, "to carry in reasonable time."

It is now pretty well a fixed rule, that if sender's man signs the conditions of a special contract, it is binding, provided he is the sender's own man, and sent to the station by his master to do what is necessary in respect to the forwarding of the goods or cattle. Where time permits it is a wise precaution to make the sender's man read the conditions before allowing him to sign, or if he cannot read, then the clerk should read the conditions to him.

For years the legal decisions were inconsistent on the question of "negligence, gross or culpable," where a special contract had been made. In a general sense a special contract could not cover an injury classifiable as "negligence, gross or culpable." Thus each judge was left to his own sweet will to define the acts he considered "negligence, gross or culpable," and to set aside, in consequence, the special contract as "unjust and unreasonable." Since about 1872 the phrase "wilful misconduct" has been introduced into special contracts, and this gets rid of the dubious term "negligence;" precedents by the later decisions of the courts are accumulating as to what acts constitute "wilful misconduct," and as time goes on, greater certainty will have been attained as to what "injuries" to goods are covered by the special contract and what are not so covered.

A special contract properly executed will exempt a company from accidental fire and destruction of goods.

A special contract that money claims for damage or deficiency must be made within a stated time will hold good. (*Lewis v. Great Western*, tried in Court of Exchequer, June 5, 1860.—*Hurlstone & Norman's Reports*, vol. 5, page 867.)

Where cattle are injured or killed in unloading or before exit from the company's premises, the value of a special contract is somewhat uncertain, the feature of "wilful misconduct" is likely to be the pivot upon which the case will turn, and the particular acts done at the moment by the company's men and the consignee's men, will form the facts upon which the particular case will be decided. One thing is clear, that the company are not quite free from liability when on

opening the waggon doors they may say to consignee—"There are your cattle; take them."

Delivery of goods to a wrong consignee, causing delay or giving rise to damage, is not an act that a special contract will cover so as to exempt the company from liability.

A very troublesome class of cases is where consignees refuse to accept goods, owing to damage or delay. If the carriage is "to pay" the carrier can issue a "sale notice," signed by a principal officer of the company, and if that does not lead consignee to accept the goods, when the time of the notice has expired the carrier can sell the goods for the carriage, and tender the overplus, if any, to consignee. Another course open to the carrier is to sue consignee for the carriage, as a carrier is entitled to his carriage, even although he may have damaged the goods. By taking consignee into court for the carriage, the consignee can raise the question of the damage, and the court can then settle the carriage and the amount of the damage, and thus the company can get rid of the charge of the goods, and close the transaction before further deterioration may arise with respect to the damaged goods. When the carriage is "paid" and the carrier is unable to make any money demand, the only course then is to keep the goods for a week or longer, until warehouse rent accrues, and then issue sale notice or sue for the warehouse rent as before described. Of course such extreme measures should only be taken upon the authority of the district officer, and then only with a very obstinate trader who systematically obstructs the carrier, and tries to fasten exorbitant claims upon him without just cause.

The seizure of goods under a Sheriff's execution is a very awkward affair for the carrier, and as far as we have been able to ascertain, is not provided for in the instructions issued by any railway company, except the North Eastern Railway Company. The following is a copy of the rule in force with that company:—

"In cases where any sheriff's officer or bailiff makes a claim to any goods awaiting, during or after transit, but before delivery, under a writ of execution or distress for rent, such officer or bailiff must on no account be allowed to take possession or stop the forwarding or delivery of such goods; but information can be given as to the destination of the goods, so that such officer or bailiff may follow the same and be present on delivery to consignee."

The question is not free from legal complications, and the following opinion of counsel, Mr. T. W. Bell, has been obtained upon the matter:—

"If there be an execution against the *consignee* of goods, the sheriff can seize those goods at any time during transit, inasmuch as he stands in the place of the consignee, and the consignee has a right to receive the goods at any stage of the journey (*London and North Western Railway Company v. Bartlett*, vol. 7, *Hurlstone & Norman's Reports*, page 400), but this right of the sheriff is subject to the right of the vendor to stop in transitu (*Smith v. Goss*, vol. 1, *Campbell's Reports*, page 282), and is subject also to the right of the carrier to a lien upon the goods to the amount of the freight, as the execution

creditor can have no greater right than the consignee himself against whom the lien for freight exists (*Whitehead v. Anderson*, 9 *Meeson & Welsby's Reports*, page 529). A bye-law, therefore, which denies the sheriff's right to seize till the expiration of the journey is bad, but the carrier is entitled to withhold the goods if he has received a notice from the vendor of stoppage in transitu, and also so long as the freight is unpaid."

ACCOUNTS.

STATION ACCOUNTS.

Describing railway station accounts—comprehension of debit and credit—list of accounts books—balance-sheet centre of accounts—description of debits, explaining in detail each description of item—description of credits, explaining same—extending porters and posted—undercharges—porters' current debit—ledger current debit—porters' arrears—ledger arrears and deduction book—"paid on," checking—abstracting described in detail—ledger accounts, opening and collection—porters' settlements described in detail—clerks to be guaranteed—cash book and balances—"paid on" book, balancing—recharges—balance-sheet, making—*specimen balance sheet, with complete sectional balances of the different parts of the work.*

RAILWAY accounts at stations are perhaps exceptional, and different to all other commercial systems of accounts. They bear no similarity to either single or double entry, but are a kind of hodge-podge system grown out of the exigencies of the business. The principle of debit and credit, common to all accounts, necessarily pervades and controls railway station accounts. Where a person is thoroughly grounded in a knowledge of debit and credit, and able to hold the principle in view through the ramifications of a large system of accounts, no difficulty will arise in his quickly grasping the railway station system. The general or half-yearly accounts of railways are kept very much after the usual commercial plan of book-keeping, while the station system may be designated as a subsidiary plan convenient for building up the totals required to be brought into the half-yearly accounts.

An agent should keep on good terms with the travelling auditor, and gather suggestions from the auditor, whereby the working of the station may, if possible, be improved. The auditor, if a reasonable man, should be considered and treated as one who suggests improvements, and not shunned as an objectionable inspector. If a station is worked well a travelling auditor is the very man who by his reports can contribute towards gaining an agent a good reputation. Nothing is ever lost by proper politeness and attention to messengers from headquarters who conduct themselves reasonably.

It may be well to explain for the uninitiated that for all money which an agent receives on behalf of the company he is "debtor," while for all he hands over to the company or pays away in an authorised manner on their behalf he is "creditor." Before attempting to make a balance sheet, and especially where there are a great many different entries to deal with, it is imperative that an agent should distinctly understand the bearings of the various items of money as they affect the matter in a debtor and creditor sense. If the mind does not rapidly

classify the items, so as to place one with the other in their true relationship, the most perplexing complications arise, and it is futile to attempt to arrive at a balance. The following enumeration of the leading items supplies the groundwork, therefore impress it well upon the recollection, and with practice an agent will learn how to deal with special items. If the reader would become proficient in balance sheet making, he should lead his mind to habitually classify, in debtor and creditor form, all items that pass under his notice, even when he may not be employed upon balancing work. When an inexperienced person has been endeavouring to make an account balance, and has drawn things into a disordered and jumbled state, it offers a splendid opportunity for re-classifying and disentangling the confusion. This is the field for perseverance and investigation, and many travelling auditors delight in obtaining opportunities of the kind.

The principal books in use affecting the accounts at a station, and their names, are as follows:—

Invoice books, written or tissue.	Ledger summary and outstanding
Outwards abstract, "	book.
Inwards "	Undercharge book.
Appendix book.	Overcharge "
Cash or porter's settlement books.	Paid on "
" summary book.	No debit "
" remittance "	Storage "
" disbursement book.	Demurrage "
Porter's ledger.	Cattle ticket "
" outstanding book.	" abstract tissue book.
Ledger (traders') account book,	Balance sheet book.
written or tissue.	

The balance-sheet book is the practical focus-centre of the money received and paid, and all the other books used in working out the results revolve round the balance sheet book. The account keeping, in reality, is resolved into simply a cash account between the station agent and the company by whom he is employed. It may, therefore, be the easier plan to begin at the end to illustrate the beginning, rather than to begin at the beginning to illustrate the end. We therefore refer the reader to the balance sheet in the succeeding pages, and now proceed to describe the entries therein contained, and explain how the figures are worked into shape.

DEBIT SIDE OF BALANCE SHEET.

TO BALANCE FROM LAST MONTH, VIZ.:—	£	s.	d.
CASH BOOK BALANCE, - - - - -	-	-	-
LEDGER ACCOUNTS OUTSTANDING, - - -	-	-	-
PORTERS' ACCOUNTS OUTSTANDING, - - -	-	-	-
OVERCHARGES UNCERTIFIED, - - - - -	-	-	-
DISBURSEMENTS WITHOUT CLEARANCE, - - -	-	-	-
CLAIMS PAID AND WITHOUT CLEARANCE, -	-	-	-

These are simply the figures culled from the last balance sheet and their manipulation will be better understood when we treat of them on the credit side of the sheet.

	£	s.	d.
To total amount of carriage "paid" on outwards traffic as per outwards foreign and local abstract summaries, - - - - -			
To total amount of carriage "to pay" on inwards traffic as per inwards foreign and local abstract summaries, - - - - -			

These two amounts form the bulk of the debit at a station, and the chief use of the abstract books is to facilitate the compilation of these totals.

For all goods that are carried from one station to another an invoice is made by the sending station. The sending station originates and makes the charges on each invoice for the conveyance of the goods, and creates the debits against itself as well as against the station to which the invoice is sent. On British railways after the charges have been once made and the invoice issued, no subsequent alteration of such charges is allowed. Whether the charges made are right or wrong the figures must stand, and any corrections that may be found necessary can only be made by overcharge sheet or undercharge invoice, which are supplementary forms for amending debits and credits.

There are two columns on an invoice, one with a printed heading "paid" and the other "to pay." If the amount of carriage is written in the "paid" column, it stands to the debit and is charged against the sending station. If, however, the amount of carriage is written in the "to pay" column, it stands to the debit and is charged against the receiving station; thus the total "paid" amount on invoices sent away outwards, and the "to pay" amounts on invoices *received* inwards, constitute the chief debit of a station.

Each invoice may contain from one to twenty or more entries with "paid" and "to pay" amounts, and hence each invoice requires to be correctly totalled, because the total "paid" and "to pay" amounts on each invoice, constitute a debit against either the one or the other of the two stations concerned in the traffic—an invoice is thus an accounts document, and it forms the basis of all the goods accounts at a railway station.

The debits having been created by the "paid" and "to pay" amounts, the next step is to aggregate or club such debits together into totals. This is first done by making the additions of the totals of each invoice as before explained, and this is followed out by the process of abstracting these invoice *totals*, in or on to the inwards and outwards abstract books or sheets in station order. If the entries of the invoice totals into the abstract books could be made continuously each day, as was formerly the case, great labour would be saved at the stations, but for certain reasons that will be seen hereafter, this cannot be done. An inwards abstract book is kept for inwards invoice totals, and an outwards abstract book for outwards invoice totals. These books are divided into alphabetical folios to accommodate the commencing letter of each station, and the invoice totals are entered up with each station separately, the same as a tradesman's ledger is posted in alphabetical order for goods supplied to each of his customers.

Having posted the outwards "paid" totals of invoices into the abstract book in station alphabetical order, but necessarily spread through various folios of the book, the final aggregating or clubbing of them together is by a summary of totals. This is done either weekly or monthly, as it may be customary to make out the balance sheet. In doing this the invoice totals, as posted under each station in the abstract book, must be totalled in the gross. We will assume that these are monthly totals. These monthly totals have then to be entered on to a final summary sheet, and this sheet is in turn totalled, and the total of the "paid" amounts on the local and foreign outwards final summaries forms the grand total or sum to be entered into the balance sheet as the total "paid" on outwards traffic. The inwards "to pay" totals are treated in a precisely similar way, and the total "to pay" on inwards traffic is brought out in like manner.

TO SUPPLEMENTARY INVOICES AND APPENDIX DEBITS, £ s. d.

Under the best possible arrangement, invoices, prior to the current period, occasionally turn up and have to be brought to account after date in a supplementary abstract book. The abstracts having been closed for the dates that correspond with the dates of such invoices, the time has passed when these invoices can be added to the particular abstract summary to which they properly belong, according to date order; hence they must be taken to account as supplementary. At small stations where there may be only one or two such invoices each month, they can easily be entered singly on the face of the balance sheet. At many large stations, however, such invoices may number several dozen per month, and it has therefore been found convenient to put them into a separate supplementary abstract book, and summarise the debits and credits under the heading, on the balance sheet, of "appendix." In addition to the ordinary abstract sheet, a specially printed book and duplicate loose form is used, in which the debits and credits are summarised as "appendix" entries. The total "paid" and "to pay" and undercharge amounts on this appendix list come into the balance sheet as "appendix" debits, while the overcharge amounts form the appendix credits. In fact, all the varieties of debits and credits to be dealt with in the general account are common to the appendix entries, which is simply the tail end or the waifs and strays.

The supplementary abstract book and the appendix compare with the general abstracts and the abstract summary, the appendix being the substitute for the abstract summary, in respect of debits and credits.

The supplementary abstract book is also used for recording the totals of such current invoices as may have been shut out at the closing of the foreign abstracts on, say, the 6th of the month, and the local abstracts on the 8th of the month.

The appendices are also used as mediums to adjust debits and credits that may be misplaced or otherwise, arising from mistakes in the abstract debit on the summary of station totals. Many appendix entries also arise through the Clearing House and audit office inaccuracy sheets, and these should be posted up at the time when the inaccuracy sheet is dealt with.

The following are samples of amounts that become appendix debits:—

Date.	Invoice No.	Station.	Amount.			
			£	s	d.	
16	5	To Norwich	0	0	1	Paid on abstracted, 1s. 11d. should be 1s. 10d.
17	8	„ Halifax	0	1	0	Paid on twice abstracted.
11	8	„ Paddington	0	1	8	„ „ „
14	6	From Reading	0	18	9	Invoice received after closing of abstracts.

To AMOUNTS WITHOUT DEBIT (*current*), - - - £ s. d.

“No debits,” as spoken of here, are amounts for which an artificial debit has to be created, because in the *current* balance no debit is otherwise provided. Such items may be overgot money, or in relation to the current balance sheet, misplaced credits. When a balance sheet has to be arbitrarily closed on a particular day with a continual hourly flow of business, as is the case at a railway station, it is quite impossible to get all the items of debit and credit to fall into their right places as a matter of course; and in a sense you have to legislate for errors, because errors in such a case are beyond control. During the process of checking credits with debits and balancing there will be some amounts found without debit, that is, amounts will crop up not included in the “paid” or “to pay” debits, and unless a debit be provided for them, a true balance cannot be made. The “no debit” book is then the provision to meet these contingencies. The principal kind of items that may form “no debits” (being excess credits) are as follows:—

Amounts collected on unentered goods.

Amounts paid into cash and invoiced “to pay.”

Overcharges on “paid” and “to pay” entries not refunded.

“Paid on” amounts invoiced and cash not actually paid (where the “paid ons” are not held over in a special book as suspense credits).

“Paid on” amounts short paid.

“Paid ons” over invoiced.

Amounts debited carting agent in error when the cash has been paid to the company.

Amounts arising from the substitution of through entries for local entries.

Amounts over remitted by cashier.

Amounts realised by the sale of refused goods when not dealt with as goods sold.

It must not, however, be considered that a “no debit” book is an asylum into which all troublesome items may be posted and forgotten. It is or should be simply a “suspense” debit book, where an amount may be held in suspense until after the balance sheet is made out, when steps should be taken to clear it before the time when the next balance sheet will become due. Items like cartage, storage or demurrage, should never be posted into a “no debit” book, because such items form part of the ordinary receipts to be taken finally to debit each month under

their particular heading. No amount should be posted into the "no debits," unless with full particulars by which the amount may be subsequently traced and identified. Undiscovered differences in a balance sheet should not find an asylum in the "no debits" because that would amount to "cooking" the balance sheet. Some accountants are in favour of allowing amounts to remain in the "no debit," book until claimed. We do not approve of this plan, and think that every effort should be made to clear items out of the "no debit" book the same as is done to clear amounts from the outstanding book. In spite, however, of every effort, small items will accumulate in the "no debits," too small to be ever claimed by the public or to warrant correspondence, and these, every three or six months, should be taken to account finally.

The "no debits" in gross put on the debit side of the January balance sheet will, in the February sheet, be taken credit for, so that it may be open to the agent in February to appropriate to the parent debit any amount that in January he had occasion to post into the suspense debit account; thus in a balance sheet there are "no debit" totals both on the debit and credit side. The "no debit" items on the debit side are the "no-debits" to be dealt with in the current sheet, while the "no debit" amount on the credit side as before stated, constitutes the total taken to debit in the previous balance sheet.

TO AMOUNTS WITHOUT DEBIT AS PER LIST, TAKEN
FINALLY TO DEBIT, - - - - - £ s. d.

The circumstance that there are often two entries on a balance sheet, described as "amounts without debit," gives rise to confusion in some minds. A moment's thought, however, will easily reconcile the seeming anomaly. While the *current* "no debits" are alternately shown monthly on the debit and credit side of the balance, so that they may be recovered from suspense in any month's account, the other class of "no debits" are amounts finally taken to debit and which, as far as is known *at the time*, will never be required again. Current "no debits," when matured by age, require to be weeded out and periodically brought to final debit. Yet such is the elasticity of account keeping that they are still not yet beyond reclaiming. By some unlooked for circumstance a few odd debits will occasionally turn up, and it will then be found that the credits to match them were some months before treated as "no debits" and taken finally to debit. It is then necessary to reclaim these amounts by making a special list of them and taking credit for the total on the balance sheet, as a special credit entry, giving the proper references showing how the items had been previously treated.

TO UNDERCHARGES, - - - - - £ s. d.

Formerly an undercharge sheet was treated in the accounts as a voucher, and the total sum aggregated through the abstracts in the porters or posted, and brought to account in the balance sheet as a particular debit. This is not the present mode of dealing with undercharges, which are now debited by the issue of undercharge invoices and

a separate sectional balance made of them. It may be well at this stage to explain undercharges.

When the clerk at the sending station makes the charge for a consignment of goods, he is liable to make a mistake, either in the rate, weight, addition, or calculation, by which a less sum is charged for the carriage of the goods than should have been charged. When this is discovered, the additional charge has to be created and a debit fixed upon the station concerned by the issue of an undercharge invoice, and on the face of this undercharge invoice the matter is explained and the references given. If the undercharge is upon a "paid" amount the additional charge is made "paid," and the sending station is debited and responsible to recover the amount. If the undercharge is upon a "to pay" amount, then the receiving station is in like manner debited and responsible to collect the amount. The issue of an undercharge invoice thus brings the debits into the abstract books along with other invoice debits, and thence, forward into the abstract summary of station totals. In this manner the old form of undercharge sheet or voucher has been superseded and an invoice substituted.

A clerk at the receiving station checks the invoices as they are received and discovers all the undercharges which his station is responsible to take to account, whether upon "paid" or "to pay" amounts, that is, to the debit of either the forwarding or receiving station. For this purpose an undercharge book, suitably ruled, is provided, into which the amounts are posted. The clearance of the items from this book can only be effected by the undercharges being actually invoiced and thus a debit created, or, by their being written off as bad debts. The issue of a debit invoice is effected by correspondence.

A clerk at the receiving station by posting up undercharges on "paid" amounts affecting the debit of the forwarding station, leads to the carrying out of a very complete check. In like manner a clerk at the forwarding station posts up undercharges on the "to pay" amounts affecting the debit of the receiving station, and thus one station checks another station. Unless the clerks at two given stations act in collusion for dishonest purposes, all the undercharges must with certainty be brought to debit, and either collected or written off as bad debts. The undercharges against the debit of other stations are not noted in the undercharge column of the invoices, as this column is reserved for only such undercharges as affect the debit of the receiving station.

UNDERCHARGES TAKEN FINALLY TO DEBIT, - - £ s. d.

These consist of minor amounts that from some mischance have not been invoiced, and to clear them out of the undercharge book they are brought finally to debit under this special entry on the balance sheet. Should invoices subsequently arrive, the amounts can be reclaimed by entry in a special list on the next month's balance sheet on the credit side. The treatment is the same as explained in respect to "old no debits." There are frequently small amounts under one shilling, being local undercharges on local traffic, and most companies

consider the issue of an undercharge invoice locally unnecessary, consequently these amounts fall into the above heading. The corresponding station should in such cases be advised, and the amounts posted into the undercharge book.

"PAID ONS" NOT PAID TAKEN FINALLY TO DEBIT, £ s. d.

Amounts that are not paid out at the time when the goods are despatched, and that stand in the "paid on" book unclaimed for a certain time, say three or six months, are taken finally to debit upon the supposition that they have become "unclaimed." Should they, however, be subsequently claimed, and payment made, they are then treated in the same manner as explained under "no debits;" that is, they are reclaimed by entry on a special list, and credited in the next current balance after payment.

"Paid ons" upon ropes that have never been returned come under this heading, unless when shown as a special entry on the balance sheet. "Paid ons" extended and unextended in relation to hired sacks also come under this heading.

SPECIAL RECEIPTS (SPECIAL DEBITS), - - - £ s. d.

This class of receipts is a source of anxiety and suspicion to travelling auditors and audit offices, because there is not always a check against dishonesty in respect to such receipts. It therefore behoves a station agent, who wishes to stand well with these two powers of control, to pay special attention—(1), to insure that the special charges should really be made when occasion arises; (2), that the amounts are subsequently actually brought to debit.

These special debits need not, in the reader's mind, be confused with "no debits." The special debit arises out of a specific charge for some particular service or sale of goods, while the "no debit" proper, is really a credit temporarily converted into a suspense debit, when it is not an accidentally "overgot" sum of money. The special debit is at once taken finally to debit, while the "no debit" may remain for months in suspense.

In a general way the special services for which the public pay money that becomes special debits are comprised in the following, but at particular stations there may be other exceptional services that produce special receipts—

Cartage—(1), Cartages beyond the delivery boundary; (2), cartages on station to station goods, and all excess cartages.

Warehouse rent—For grain, wool or other goods that remain on hand for a period beyond the time for which the company allow free warehouse accommodation.

Siding rent—For owners' waggons that are out of use or allowed to occupy the company's sidings, an undue length of time.

Weighing—For weighing goods in the interest of the consignee or sender, beyond the weighing required by the company, to fix their charge for carriage.

Demurrage—On waggons and sheets detained beyond the time allowed free.

Sack hire—For the use of the company's or their contractor's sacks.
Meat hamper hire—For the use of the company's or their contractor's hampers for conveying meat traffic.

Postage—For postages on advice notes that may be recovered.

Wharfage—For the use of wharves at stations or dock sides for wharfage of coal, slates, bricks, timber, &c.

Shunting—For the service of shunting in respect to waggons put into and taken from private sidings.

Market tolls—Where companies supply spaces of ground for live stock, vegetable, or other produce, in waggons or otherwise, to be sold thence to the general public.

Porterage—Where the company's men load or unload station to station traffic, coal, timber, boilers, &c.

Paddock hire—Where the company let out paddocks to accommodate live stock and make a charge per head.

Bonded store rent—Same as warehouse rent.

Craneage—For use of steam, hydraulic or other cranes required to lift boilers, engines or other heavy weights.

Works to works traffic—Where traffic is transferred short distances from one private siding to another private siding, and is uninvoiced and, consequently, beyond the control of station agents at both ends.

Bedding and fodder for live stock—When supplied for the conveyance or feeding of live stock.

Salvage on damaged goods, } When such may arise
Sale of unclaimed goods, }

Insurance premiums—Arising on goods insured.

Sale of old worn-out horses, } - - - Where such may arise.

Sale of the carcasses of live stock, - " "

Sale of manure and station sweepings, " "

The great object is to take the control of the making, or not making, of special charges for exceptional services out of the hands of the foreman porter class, not but that very many of these men are as trustworthy as those of the clerk class, but some of the former, without any dishonest intention, cannot resist a "tip." A trader may offer a tip to a foreman porter to evade payment of an extra charge, when he might hesitate to offer it to a clerk in an office. It is thus better to take the control completely out of the hands of foremen porters, and save them the possible temptation of being offered "tips."

With this principle in view an agent must devise the best plans he can to meet the particular circumstances and particular kinds of special charges that arise at his station. Counterpart ticket books similar to those in use for excess fares are often useful. Returns from one man to check the work of other men are also useful. The fixing of the duty as a whole on one particular clerk, with adequate time to look after it, is another plan. Personal inspection at frequent but irregular times, will help to keep the men on the *qui vive*.

Some companies provide a specially ruled book in debtor and creditor form, and require that amounts incurred for services should be

entered on to the debit side, whether the money has been collected or not. We do not see much extra security in this plan, because practically the station clerks may just as easily suppress the entry in the book as on the balance sheet. It may catch a few stray items, but we have not much faith in the items being brought to debit until the cash has been collected or is recoverable with certainty through a ledger account.

CREDITS.

BY CASH REMITTED, - - - - - £ s. d.

As the cash is received for the carriage of the goods it should be entered into a cash or porter's settlement book, and each day a total made of the day's collection. On many lines the day's total is then transferred to a goods cash book in which the other cash debits and credits are treated. This sum, less "paid ons" and other authorised payments, should be remitted on same day, or early next morning, to the head cashier or the company's banker. This, of course, forms the largest amount of credit to place against the "paid" and "to pay" debit amounts. A detailed list of the daily remittances is usually shown at the back of the balance sheet, and the total of these sums is the amount carried into the front of the balance sheet.

BY "PAID ONS" AS PER OUTWARDS ABSTRACT

SUMMARIES, - - - - - £ s. d.

The "paid on" amounts are sums of money advanced upon goods accepted for conveyance, and are principally paid to other carriers who have carted or conveyed the goods from their original starting place. These "paid ons" are for previous carriage, and may be sea freight, port dues, town cartages, &c., and are sums chargeable forward upon the goods to the consignees, by being added to the "to pay" amount on the invoice. A separate column, however, is used on the invoice with a distinct printed heading "paid on," the object being to prevent confusion or the mixing together of the carriage payable to the last carrier for the different parts of the entire journey. The "paid on" amounts are aggregated in the same manner as before explained, in respect to the "paid" and "to pay" amounts, and the grand total worked on to the balance sheet from the abstract summary of station totals.

BY OVERCHARGES, - - - - - £ s. d.

Overcharges are the converse of undercharges, being amounts that have been charged in excess of the proper charge arising from mistakes in rate, calculation, or weight. They arise on both the "paid" and "to pay" debit.

Two overcharge books are kept, one for foreign and the other for local overcharges; the foreign relate to stations on railways other than the railway upon which the reader may be engaged. The overcharges, as discovered, are entered on overcharge sheets (or invoices where used), a separate sheet or invoice being used for each station. The overcharges are then posted up into the books from the sheets. The

overcharge sheets, when foreign, are sent to the stations concerned for certification.

With local overcharges it is sufficient for the corresponding station to acknowledge the overcharge and certify the sheet, and the sheet then, on being certified by the second station agent, becomes an authorised credit that may be carried into the balance sheet. Reference to correspondence should be shown upon all overcharge sheets.

With foreign overcharges the routine is as follows:—If the overcharge is in weight, rate, or calculation, and is unquestionable and beyond probability of dispute, then an overcharge sheet can be made out *at once*, and after being signed by the agent should be sent through the correspondence to the second station agent for certification. Both station agents having certified the sheet, the issuing station agent who requires the credit then sends the sheet to his goods manager, thence it is sent to the foreign company's goods manager, and after both goods managers have certified the sheet it is returned to the issuing station agent, when it has, by this process, become an authorised credit to be carried into the balance sheet.

When the foreign overcharge is doubtful and there is some uncertainty, then the matter should be taken up through the correspondence and the sheet not issued until the foreign station agent has agreed to the overcharge being made. The sheet is then sent to him and the routine is the same as described in the previous paragraph.

An agent asked to agree to an overcharge that to him is doubtful, before doing so, should first take his goods manager's advice on the matter.

Overcharge sheets issued to clear debits on traffic reinvoiced should invariably bear the invoice reference of the new entry.

No overcharge sheet should be certified until the correspondence reference has been inserted in the margin of the invoice, as a preventive to a second sheet being signed for the same amount.

The obtaining of the various certificates gives rise to extended correspondence, and the holding in suspense of a number of amounts waiting clearance and which have to be shown on the balance sheet as outstanding overcharges.

BY SPECIAL CREDITS, - - - - - £ s. d.

These are sundry amounts, arising from time to time, not always classifiable under any one head, and it is convenient to aggregate them into a list and only bring the total into the balance sheet, rather than burden and crowd up the limited space in the sheet with a number of entries in detail. If the number of one class of amounts constantly arise, they may form a particular entry, to be exceptionally treated in the balance sheet. Claims vouchers, and refund orders will also come under this head.

BY APPENDIX CREDITS, - - - - - £ s. d.

This heading is used, like that of appendix debits, for invoice totals that, by some mischance, have escaped being included as credits in the abstract summaries for the period to which they belong, such

credits being principally paid ons and overcharges. The following are samples :—

Date.	Invoice No.	Station.	£	s.	d.	
9	14	To Birmingham	0	7	4	Paid on abstracted, 8d. should be 8s.
10	9	" "	0	1	0	Paid on not abstracted.
8	7	" Leeds	0	0	6	" invoiced and not abstracted.
6	3	" Manchester	0	0	9	Paid amount abstracted, 1s. 9d. should be 1s.

BY OUTSTANDING AMOUNTS FORMING THE BALANCE

CARRIED FORWARD TO NEXT MONTH, VIZ. :— £ s. d.

CASH BOOK BALANCE,	-	-	-
LEDGER ACCOUNTS UNPAID,	-	-	-
PORTERS' AMOUNTS UNPAID,	-	-	-
OVERCHARGES UNCERTIFIED,	-	-	-
DISBURSEMENTS WITHOUT CLEARANCE,	-	-	-
CLAIMS PAID WITHOUT CLEARANCE,	-	-	-

These outstanding unpaid amounts constitute the balance to be carried forward to form a debit in the next month's balance sheet, and in amount ranks second as a credit with the "cash remitted" credit. The items on some railways are classified under only one general heading as "outstandings," but their division under separate heads, as above, displays them in sectional form, which renders them more easily controlled and manipulated in the sectional balances. The process by which these totals are worked out will be seen in the sectional balances where each total can be identified. It will be sufficient to tell the reader that after the cash has been checked with the "paid" and "to pay" amounts on the invoices, the items for which no cash has been paid are swept out of the invoices into the outstanding book. This is to compress the unpaid amounts into a restricted compass where they can be more easily handled, and subsequently cleared either by collection of the money or in some other recognised way.

BY BALANCE OF CASH BOOK, - - - - £ s. d.

The last day of the month, or rather the morning of the first of the next month, is the last opportunity of remitting cash to the credit of the current month. It often happens that some cash amounts have been just paid for disbursements, claims, or otherwise, and which will occasion a balance of cash short remitted.

The practice of treating cash balances varies on different lines. On some lines a floating capital of five pounds, ten pounds, or very much more is allowed to meet petty expenses or disbursements. This amount may be treated as a sum outside the accounts altogether, and dealt with separately; but in some cases it may be an amount of cash "withheld" from month to month and shown as "balance of cash book," and accompanied by a statement each month showing whether it is held on hand in the form of cash, or some portion of it in the form

of vouchers, for recognised payments, for which an authorised credit is in course of issue.

We prefer to show no amount on the balance sheet as a cash balance, unless it really represents cash short remitted and which should not ordinarily occur. All cash represented by cash vouchers we prefer to enter into the sheet as "disbursements uncertified," and work them up each month in the form of a sectional balance.

The clearance of outstandings is greatly facilitated by the accounts clerk once a week making out delivery notes against the clerks and foremen in fault, for amounts outstanding due to their carelessness—say on the 27th of the month, deal with all amounts on invoices dated between the 1st and 7th of the same month, and so on week by week. These notes should be passed to the persons concerned for investigation and clearance. With inwards "to pay" debits, the question is whether the goods are still on hand, or have been delivered without the carriage being collected. In the latter case the clerk in fault should be made to either obtain the money or to pay same. A similar course should be followed with "paid" debits, and pressure put upon the person in fault. If one set of clerks are to be engaged clearing the errors of another set, then errors will flourish. The same remarks apply to the carriage on empty packages when outstanding.

PREPARING INVOICES FOR ACCOUNTS PURPOSES (PORTERS AND POSTED).—The preparation of the "to pay" amounts on the received invoices is usually done in the delivery office, as before explained under "delivery office," but the process is still within the administrative control of the accounts clerk in that it shall be correctly done. The extension of the "paid" amounts on outward invoice tissue copies is usually done in the accounts office, when the copies reach that office.

Before dealing with the abstracts, it is necessary to explain to the uninitiated the "porters" and "posted" amounts, and the checking of invoices. The porters and posted amounts consist of the debit ("paid" amount on outwards and "to pay" on inwards traffic) separated and extended into what is termed the porters and posted columns in the invoice. Supposing there are a dozen amounts on an invoice, some of these may be posted into the ledger and the others paid to the porter (or carter) when the goods are delivered. It being desirable that the totals of these should be distinguished for balancing purposes, the one is extended into the "posted" column and the other to the "porters." If this has been done correctly, the total "posted" and "porters" on the invoice, added together, will balance and agree with the total debit, because they are simply the debit re-written and separated. When undercharges and overcharges creep in it becomes rather more difficult for the uninitiated to understand them. An "undercharge" has been previously explained. When it occurs on a parcel of goods, the amount undercharged is entered in the undercharge column on the invoice, and added to the amount that *has been* charged, and the total is extended to the porters or posted, as the case may be. The reverse is the case with an overcharge, which is deducted, and the *difference* extended. In fact,

the porters and posted are the correct and actual amounts that have been, or have to be, paid for carriage. In balancing the totals of an invoice when there are undercharges or overcharges, the debit and the undercharge must be added *as a debit* on one side, and the "porters," "posted," and overcharges as a credit on the other. If the work is correct, the totals will agree as below:—

RECEIVED INVOICE.

Dr.	To Pay.			Under-charge.	Over-charge.	Porters.			Posted.			Cr.
	£	s.	d.	£	s.	£	s.	d.	£	s.	d.	
1 16 2	0	5	6	...	...	0	5	6	...	...	...	0 6 0
0 3 0	0	0	8	3	...	0	3	8	...	...	...	0 19 4
	0	4	0	...	...	...	...	...	0	4	0	0 13 10
	0	2	2	...	...	0	2	2	...	...	...
1 19 2	0	5	10	...	...	...	...	...	0	5	10	
	0	8	0	...	...	0	8	0	...	...	...	1 19 2
	0	10	0	...	6	...	...	...	0	4	0	
	1	16	2	3	6	0	19	4	0	13	10	

"Porters" and "posted" on inward invoices are extended to the proper printed columns; but with the tissue copies of outward invoices, when the invoices are not printed with copying ink, so that the printed ruled columns will copy out on the tissue copy, it is advisable to *rule columns* with the new violet pencil, which is the most distinguishable on the tissue copying paper.

As the charges that are made "to pay" on invoices received from stations may not be correct, it is of importance that the rates and calculations be checked as soon as possible after receipt of invoice, and the undercharges and overcharges made, when necessary. If this is not done the company may lose by the proper charge not being made, or, on the other hand, traders may be charged more than they ought to pay. In either case it is an evil. The same refers to the paid amounts on outward invoices. The debit is arrived at from the totals of the invoices entered in the abstract books; therefore, it is of the utmost importance that the totals of every invoice should be added correctly, or no true balance can be made. If the debit is over-added on an invoice, the different amounts, when paid, will fall short of that total, and the balance sheet will show a deficiency, and *vice versa*. Have all invoices examined as to the rates charged, and the calculations and additions, and require the person who examines them to write his initials afterwards upon each. This should be done daily with inward and outward invoices. Should any errors be detected, the receiving or forwarding station, as the case may be, should be advised by letter, and reference to the acknowledgment given on the undercharge invoice or overcharge sheet. If this is done when the sheet is sent to the station for certification there is no misunderstanding, as it bears reference to the agent's letter admitting the alteration.

An attempt has been made to give an explanation of the various items of which a balance sheet consists, enumerating them as debtor and creditor entries. We have thought it better to deal first with the result that has to be worked out, rather than to treat of the varying and mystifying details necessary in gaining that result. This seems best, as it can then be more clearly seen why the detail is necessary, and to what points it converges.

CURRENT PORTERS "PAID" DEBIT AND ITS CLEARANCE.—The manner in which the "porters" debit is collected together, and then aggregated into totals of "paid" and "to pay" amounts on the abstract summary of station totals has been explained, and it is hoped the reader will have mastered it.

To enable a large mass of details to be easily handled you must subdivide it, but this process, while intended to simplify, imports into the matter an element of complicity in that you are compelled to multiply sections, but this is unavoidable.

Suppose for argument, we take supposititious figures, and say your current month's outwards "paid" abstract summary debit, for which you have to account amounts to five hundred pounds, and the principal credits stand thus—

Dr.				Cr.			
	£	s.	d.		£	s.	d.
Total "paid" outwards,	500	0	0	Cash received,	-	300	0 0
				Posted to ledger,-	-	100	0 0
				Overcharges,	-	10	0 0
				Outstandings,	-	90	0 0

The cash received can easily be ascertained from the month's daily totals of porters' settlement book. The total of the ledger amounts also, can be obtained from the summary of ledger account totals, and the amount of overcharges from the overcharge book. Having ascertained these three totals, an agent may think that the fourth total might be easily obtained, by the subtraction of the sum of the three totals from the five hundred pounds. This, in fact, is the way that balance figures are obtained on some American railways, but it is not recognised in the United Kingdom. An agent must in the first instance deal with details and not totals. While he might assume that ninety pounds represented the outstandings for carriage on undelivered goods, he requires to know the particular consignments on which the ninety pounds outstanding carriage remains unpaid. This shows what we are trying to bring out clearly, namely the necessity of checking the details of cash paid for each consignment, and which should be done progressively from day to day.

CHECKING CURRENT OUTWARDS "PAID" DEBITS AND CREDITS.—We will suppose the outwards tissue copies of invoices for 1st January reach the accounts office on the 2nd January, and that the cashier's porters' settlement book for that day does so likewise, the cashier using two or three settlement books on alternate days.

When the porters' amounts are or should be prepaid at the time the goods are accepted and there are no porters' amounts to be collected after the despatch of the goods, the cash in the settlement

book can then be easily checked direct with the tissue invoice porters' amounts. If, however, credit for porters' items is given, then a porters' ledger cannot well be done without.

PORTERS' SETTLEMENT BOOK AND INVOICE TISSUE BOOK.—We will, in the first instance, describe this process of checking the debits and credits. Having the two books before him, the accounts check clerk commences with the first invoice tissue copy and looks down the "paid" column. He extends the "paid" amounts to the margin in the "porters'" and "posted" columns. The items in the two books are matched by the aid of a progressive reference number. The carriage to be "paid" by the sender's man is usually calculated in the invoice office, and at this time a pro-number is given on the docket to the amount. This number is put both on the invoice and in the cashier's settlement book, so that when the check clerk puts his finger on a "paid" porter's item on the invoice tissue copy he sees the reference number and at once traces the amount in the settlement book by the aid of that number, as is done in a similar manner with inwards invoice entries. As the clerk finds each amount he "ticks" it in both books, and inserts in the margin of the tissue book the folio of the settlement book. He plods on "marking off" the cash in this way until he gets through all the day's or month's tissue invoices. He will find discrepancies (1), a larger amount in one item on the invoice than in the settlement book. In this case he will first test the charge, and if the invoice charge is correct, he will post the difference "short collected" in the outstanding book, and subsequently make out a bill for it against the clerk in fault. If, however, the charge collected proves to be correct and the amount on the invoice incorrect, he will then mark an overcharge on the tissue invoice copy and subsequently issue an overcharge sheet and enter same in the overcharge book. He may, however, find (2), a larger amount in the settlement book than on the invoice, when he must again test the charge. If the item is charged on the invoice too little, he records it and provides for an undercharge invoice being issued for the difference and an entry made of same in undercharge book; but if the charge is correct on the invoice too much cash will have been collected for the particular consignment, and the overplus cash must be posted into the "no debit" book and should be refunded to the sender who has been overcharged. He may find (3), an amount on the invoice for which there is no corresponding amount in the settlement book of cash paid, and then such amount will require to be posted into the outstanding book and subsequently, as soon as possible, a bill issued for its collection, unless on investigation it proves to be an invoice clerk's mistake in making the carriage "paid" in error. In this latter case the matter should be at once put into correspondence for the receiving station to collect the amount from the consignee. He may find (4), that after having gone quite through the tissue invoices he has some amounts in the settlement book unticked, he will then have to work the reverse way, viz.:—from the cash book to the tissue invoices and trace the consignments in the invoices, when, doubtless, he will discover that the carriage has, by the error of the

invoice clerk, been made "to pay" instead of "paid," or, that the goods have gone forward uninvoiced. The receiving station must then be written to deliver free, or, if already delivery has been made, to refund the amount to the consignee and recharge. If the recharge invoice does not come to hand at the original sending station in time to be included in the current month's work, the amount will require posting into the "no debit" book, because an amount of cash will have been received for which there has been no debit through the invoice summary.

While the check clerk is checking the "paid" amounts he will find, as before explained, many that are chargeable to ledger accounts, and these he will get out of his way by extending them into the posted column.

When these discrepancies can be adjusted *before the period for closing the accounts for the week or month*, it will not be necessary to provide special entries of debit or credit for the differences. If a shilling has been short collected and it can be collected and paid in before the accounts are closed, it is not necessary to put the shilling in the outstandings. If, in like manner, an excess amount has been paid and it can be refunded *before the date of closing the account*, you do not require to post the amount into the "no debit" book.

Having now, for the period with which you have been dealing, exhausted the "paid" "porters'" debit amounts found on the invoices, and the cash credit amounts found in the settlement book, one against the other, the clerk must balance the two totals. In making this sectional balance he must provide for throwing the discrepancies he has discovered on to a sheet of paper, in debit and credit form, according as each item relates to the one or the other. The figures will then work out something like the following:—

Dr.

	£	s.	d.
Total "paid" "porters'" amount from abstract book, -	310	0	0
Porters' settlement, folio 40, Robinson, 1 hamper, cash over collected, - - - - -	0	1	6
Porters' settlement, folio 41, Brown, 1 basket, under-charge on invoice, - - - - -	0	2	0
Porters' settlement, folio 42, Sullivan, 1 box, carriage made "to pay" in error, - - - - -	0	5	0
Amount short abstracted, - - - - -	0	5	0
	<u>310</u>	<u>13</u>	<u>6</u>

Cr.

	£	s.	d.
Total amount of several days porters' settlement book, -	300	0	0
Invoice 40, London, Smith, 1 box, short collected, - -	0	1	0
" 10, Manchester, Jones, 10 cases, overcharge, - -	10	2	6
" 5, Glasgow, Williams, 1 parcel invoiced and no cash collected, - - - - -	0	3	0
Invoice 8, Bristol, Murphy, 1 hamper carriage made "paid" in error, - - - - -	0	2	0
Amount over abstracted, - - - - -	0	5	0
	<u>310</u>	<u>13</u>	<u>6</u>

The reader must not suppose these figures show the actual balance of the "paid" "porters." For simplicity we only show here the *current* "porters," which means that the *arrears* porters are not included in this explanation. It may, however, be well here to explain shortly how the current and arrears cash may become intermixed (1), that you may have cash in the settlement book during the current month as an over-plus, because the goods were not invoiced within the month; (2), you will have cash paid, requiring to be credited to the outstandings on previous general balance sheet; (3), you may have amounts invoiced in the current month, and for which the cash has been previously paid, yet entered in the previous month's "no debits."

Discrepancies that have originated in the invoice office should be cast back upon that office to clear, even if an additional clerk is required there to do nothing else. As far as is possible the burden of correcting errors should be cast upon the person or the office originating them. It often works well to have a report book in the accounts office, into which, when the adjustment is by correspondence, all discrepancies can be entered as discovered. This book, periodically, can pass to the invoice office for letters to be written (not however registered) to the stations, as may be necessary to adjust the errors.

If this plan is not adopted then a weekly return should be made of all errors arising with the "paid" debit on the part of invoice clerks. This return should be sent to the chief invoice clerk, and he should be required to clear such debits either by correspondence or collection.

PORTERS' LEDGER FOR OUTWARDS PORTERS' "PAID."—If, from the cash not being paid at the time the goods are accepted for conveyance, a check is required upon such unpaid amounts, then a porters' ledger becomes indispensable. A description of the keeping of a porters' ledger is given under the "to pay" "porters" debit, and is equally applicable to the "paid" outwards "porters" in like manner.

CURRENT PORTERS "TO PAY" DEBIT AND ITS CLEARANCE.—There are two plans in use in balancing this section of the debit—(1), checking entries in settlement book with "to pay" "porters" on the received invoices; (2), using a porters' ledger and making a short entry in it, and then checking and extending into suitable columns these entries as the cash is received and accounted for in the settlement book. It will be necessary to explain both these plans.

The reader will recollect that each received invoice bears a pro-number given it on arrival in the delivery office. This number the cashier enters in his settlement book when receiving an amount of "to pay" cash. Thus a "to pay" item of cash that has been paid can be easily traced and matched with the same amount, on the received invoice by aid of the pro-number. The process then is, the accounts check clerk takes the settlement book for each day and takes the "to pay" amounts seriatim and exhausts them on to the invoices, checking the two amounts and inserting the settlement book folio on to the margin of the invoice. The discovery and adjustment of the errors,

by throwing them into debit and credit form, is precisely the same as described with respect to the "paid" debit.

The want of uniformity in the received invoices, when pasted into a skeleton, renders it extremely difficult and troublesome to attempt to add up the porters' debit column from leaf to leaf through the skeleton, although we have known it done. Therefore until all the cash is exhausted and checked out of the settlement books up to the close of the month, the accounts check clerk cannot write up the outstandings to make the sectional balance. Great nicety is indispensable in keeping a correct record of the errors of cash over or under collected, and of under and overcharges in the "to pay" debit amounts. Unless these stray items are accurately sorted on to the debit or credit sides, the figures will not agree and the accounts clerk's patience is greatly strained.

The second plan is to use an inwards porter ledger. The entries are made continuously and may be termed skeleton entries for balancing purposes. All that is given is the invoice date and number, pro-number of invoice, station from, consignee's name. Two money columns are used, one for each particular "to pay" amount and the other for the "to pay" *total of each invoice*. If there is a carting agent's debit to deal with, then a third column may be added for it. (See Carting Agent.) The size of the book is 17 by 10½ inches with about thirty-seven lines on a page. Beyond the total "to pay" column are six sets of columns for marking off cash and extending outstandings, each set consisting of (1) cash paid, (2) folio, (3) outstanding to next month or week, as shown on next page:—

Thus this book is not only a porters' ledger for marking off the cash and facilitating the balancing work, but it also acts for *six months* as an outstanding book. At the end of six months, when the last monthly extension column has been used up, if any amounts still remain unpaid they then require to be transferred into a similarly ruled book, but termed an "outstanding book." We claim for this plan that the saving of the monthly transfer of unpaid amounts is a "set off" against the posting of "to pay" amounts that may be paid within the month, and that under the other plan are marked off on the original invoices and done with. It is only upon such items that a plea of extra work can arise, because if an amount is unpaid at the end of the month an entry showing it to be outstanding must be made, and this entry stands equivalent to the porters' ledger entry made in the first instance.

The separate "to pay" amounts on an invoice are entered seriatim, while opposite the last one, the invoice total "to pay" or "paid," as the case may be, is extended in the next column. Hence the invoice total column can be very easily checked with the abstract "to pay" or "paid" totals, and a balance of the two made with tolerable certainty on the first trial of the figures.

Under the other plan, if the balance does not come true, after looking about and testing the undercharges and overcharges, and the posting of the discrepancies without finding the error, there is nothing for it but to re-check the whole of the cash, that is comparing the amounts again on the invoices with the porters' settlement book. Even this may not unfold the error, if it be a mistake in the addition of an invoice total in which the "porters" and "posted" are involved. In the porters' ledger plan this is very much guarded against, for the clerk, as he extends the invoice totals into the second column, will instinctively add the figures and see that they agree with the totals on the invoice, thus insuring that the additions are correct. It is therefore seldom that an erroneous invoice total turns up in the balancing, and if one is suspected the checking of the totals in the porters' ledger and their comparison with the abstract "to pay" totals is quickly and easily gone over. Furthermore, by using a porters' ledger, less experienced clerks will do the work equally as well as experienced ones, and by this plan it is easier to train young hands.

When the accounts clerk is checking the inwards cash with the debit he should observe the date of the invoice entry and the date the cash is paid, and whether storage has been collected. In the event of goods being delivered without storage when same is due, the accounts clerk should be held responsible, unless he reports the omission.

THE CURRENT LEDGER DEBIT AND ITS CLEARANCE—"PAID" OUTWARDS.—It has been already explained that the "paid" amount on the tissue invoice copies has to be extended into the "porters" and "posted" columns, which is usually done in the accounts office. Whether done by the porters' check clerk or by the ledger clerk is a matter of convenience at each station. The ledger clerk, however, having upon his memory the names of the different firms may be

enabled to extend the "posted" amounts with greater ease. For our purpose, however, we will suppose the amounts have been extended.

The use of a ledger in which a written copy is taken of each trader's account is now very generally discarded. The amounts are at once posted on to bill-heads or account sheets from day to day. A description of copying ink is used that will admit of a tissue copy being taken of the writing on the sheets a month or longer after it has been written. The sheets are kept in alphabetical order with an India-rubber band round them, and when the month's work is closed they are press copied into a ledger tissue book.

The balancing of the current ledger "total" or "posted" amount is simple. The aggregate amount obtained from the summary of ledger accounts total should agree with the total "posted" amount on the abstract summary of station totals. If it does not agree on the first trial, the only plan is to check the figures over until they are made to agree. The errors preventing a balance usually arise from wrong additions or wrong copying on to the sheets. An error is more likely to arise on the sheets than with the "posted" total of the abstract summary, as this latter, with the "porters," will have been already balanced with the total debit on abstract summary. If the abstract "posted" total *should* prove wrong, it will in all probability bring to light some error in the "porters," perhaps from an amount having been accidentally transposed.

The difficulties in balancing the ledger section do not ordinarily arise on the *current* work, but they more frequently arise on the ledger accounts for the previous month, or, as they are termed, "arrears" ledger accounts, of which more anon.

The books in use for the ledger accounts are (1) the tissue ledger already mentioned, (2) a ledger abstract book, (3) a ledger deduction book. These books are now common to most railways, but the keeping of them differs at different stations. The variation in keeping is whether the books are written up continuously, the one in date and the other in alphabetical order, or by using in each book a separate folio opened for each person's account. The principle of a ledger account is a separate and distinct account with a particular individual. We, therefore, prefer the plan of keeping the abstract of ledger accounts book and the deduction book in separate folios for each trader, with a folio index of the traders' names at the commencement of each book. This plan spreads the month's work over many folios, and renders necessary the making of a summary each month of the ledger accounts and of the deductions, to aggregate them into totals for the general balance sheet. This summary is similar to an abstract summary of station totals, and can in like manner be tissue copied. The following forms illustrate the ruling of the books:—

The abstract of ledger accounts book and the ledger deduction book are very generally written up continuously, keeping each month's work together in itself. The abstract book is in debit and credit form as in the preceding illustration, but the names of the traders are written down the side of the left hand folio, while the credits range across the book in suitable columns with printed headings; thus the debiting and crediting has to be done by cross adding, a most inconvenient process. By their being massed together in our way the accounts for each particular month can easily be seen as a whole. An aggregated total being required for the general balance sheet, has led to the adoption of this summary form, while the cross adding debit and credit has been engrafted on to it. With the deduction book the same collating of each month's work is done, the deduction entries being sometimes numbered progressively as entered into the book. Thus if at any time you want to know what are the deductions outstanding in a particular trader's account, you may easily get the total from the abstract of ledger accounts book; but to get the details of such total the items have to be picked out of the deduction book over several folios and several months. The evil is that errors are liable to creep in between the total in the abstract book and the details to correspond in the deduction book. The peremptory orders from audit offices are, that these figures shall be balanced each month. Thus when the totals do not agree, practically *each trader's* deductions have to be taken out of the deduction book separately on scraps of paper to make a comparison so as to discover where the difference lies. The actual balancing, however, here described, is not balancing incidental to admit of the figures fitting into the general balance sheet. It is balancing quite outside the general sheet. This is because any amount may lie against a trader's account *in total* as a deduction, and may be continued for some time as a "balance of muddle" before attention is called to it. In fact, it may be used as a credit for undiscovered differences in balancing the general sheet, which a clerk may be too lazy to find out. This form suits the travelling auditors, because they can audit it quicker and with less trouble. These gentlemen are almost supreme in their control of the forms and *modus operandi* at the stations, and naturally lean to the interests of their own audit. We speak feelingly, having filled the office in our earlier days.

By adding a column for *deductions* on the summary of ledger accounts, and so keeping the deductions *separate* from arrears accounts unpaid, it becomes a very simple matter to identify each trader's total of deductions on the summary with the details in the deduction book. This sub-dividing, however, does not admit at a glance of an appreciation of the gross deductions in course of clearance. Our opinion is, that by sacrificing this, there is greater gain in the matter of correctness, and the closing of an avenue likely to encourage possible "cooking" in the balancing work.

THE CURRENT LEDGER DEBIT AND ITS CLEARANCE—"TO PAY" INWARDS.—The "posted" or ledger accounts "to pay" inwards are worked in precisely the same manner as the "paid" outwards. The extension of the amounts to the posted column is generally done in the delivery office, but the ledger clerk should not blindly follow these extensions. He should exercise a supervising check and endeavour to

"pick up" any errors in the extension of the amounts. It is usual to write up from day to day the "to pay" entries on separate sheets or bill-heads same as used for the "paid" entries, because if the two are mixed their separate totals for balancing purposes cannot be easily ascertained. It is a little objectionable to hand a trader an account on two sheets, and this might be obviated by having "paid" and "to pay" columns on the bill-heads, but yet it might be awkward in some cases where the "paid" and "to pay" work is divided between two clerks. Care should be taken to insert in the rate column plain figures indicating the rate charged per ton, as many traders are very particular in checking the calculations. It often saves trouble and subsequent deductions to let a third clerk go over the rates and calculations when the sheets or bill-heads are written up for the month and finished, except the insertion of the ink totals. For balancing purposes a rough summary has to be made of "to pay" and "paid" ledger accounts, and when the figures are made to agree, a perfected copy is written in the abstract summary of ledger accounts book.

Ledger clerks should closely scrutinise "paid ons" charged upon goods for consignees who have ledger accounts, because the practice between the railway companies parties to through booking is, that heavy "paid ons" must be secured upon delivery of the goods and not posted to a ledger account. If consignees should become bankrupt and heavy "paid ons" form part of the unpaid ledger balance, the forwarding company will have a reasonable ground to refuse to participate in the loss of such amounts.

OVERCHARGES.—In some cases the overcharge *sheet* for *local* traffic has been superseded by an overcharge invoice which, in the abstracts, is treated as a "paid on" only. The forms are similar to the old form of sheet, but somewhat longer. The difference is, that by conversion of a voucher (sheet) into an invoice, these documents are passed through the abstracts and aggregated into the abstract summary of station totals, the same as the figures of any other invoice. Thus the special entry for *local* overcharges on the balance sheet disappears altogether, and should the plan become general, the same as with undercharge invoices, so likewise will the entry of foreign overcharges.

Where overcharges are clear and beyond question, such as errors in weight, rate and calculation, the station whose debit is affected passes an overcharge invoice at once, without any advice or correspondence.

Where the overcharges are such that a contention may arise, then the consent of the second station must be obtained by correspondence; and when the overcharge invoice is issued, reference must be given upon it to the correspondence as authority.

At large stations where the accounts and correspondence are worked under separate chief clerks, the accounts clerk examines all overcharge invoices. If he finds (1), amounts overcharged in excess; (2), authority or correspondence reference omitted; (3), double entries or other forms of error, he does not go into the merits of each case but at once issues an invoice "to pay," which transfers the amount back again to the debit of the station that has wrongly, or upon insufficient authority, attempted to obtain the overcharge credit.

Foreign overcharge sheets must be signed by the goods managers

of the two terminal companies handling the traffic before credit is allowed. A terminal or an intermediate company can refuse to participate in an overcharge, and the practice in such cases, between the companies parties to through booking, is for the aggrieved company to carry the case on appeal to the Claims Arbitration Committee.

No foreign overcharge sheets are allowed to be issued for amounts under one shilling, but several small amounts that make one shilling or upwards may be clubbed together and put upon one sheet.

The practice between the railway companies parties to through booking is, that the right has lapsed to pass an overcharge beyond twelve months after date of the entry, but of course it can be done with the special permission of the companies concerned in the traffic. It is assumed that the division of the traffic is not outstanding.

THE ARREARS "PORTERS'" DEBIT AND ITS CLEARANCE—OUTSTANDINGS.—Practically under this heading the term "porters" has now lapsed, because, although both "paid" and "to pay" amounts, when current, were "porters'" amounts, after the current period is over, they then become arrears or outstandings. In a sense they require no balancing, because they stand in the last balance sheet as a balanced total. But the credits by cash and otherwise that have turned up since the date of the last balance sheet require to be marked off, and the outstandings correctly reduced by such sums. The principal credits will be cash in the cashier's settlement book. This "arrears" cash should be entered into the settlement book, either in a separate column, or, at large stations, in separate settlement books. The process of checking is the same as described for current "porters;" the entries in the cash settlement book require to be exhausted into the outstanding book. The other kind of credits will be (1), recharges of amounts as "paid on and to pay" to other stations; (2), transfers of goods to other stations with the charges entered as "paid ons;" (3), credits by certified overcharges; (4), amounts that have been erroneously posted to porters, and are now re-posted to ledger accounts; (5), special credits from audit or manager's office; (6), cartage allowances.

In sweeping these amounts out of the outstandings as credits, care must be taken (1), not to mark off an item in the outstandings unless there is actually a credit for it, and that the credit is properly applied; (2), if a credit is applied, that the amount is really marked off in the outstandings. If in either case an error is made, the arrears will be put out of balance and will subsequently prevent the figures in the general balance sheet agreeing.

ARREARS LEDGER BALANCE AND ITS CLEARANCE.—In February balance sheet, made out in March, you have to deal with January ledger accounts, that during February have been in course of collection. If ledger accounts could be rendered to traders free from errors, and traders would abstain from making deductions, the ledger collector would revel in Elysian fields. The troubles to contend against are (1), to get the cash; (2), to get clearances for deductions made by traders which are often arbitrarily made, and have to be allowed, owing to the exigencies of competition.

The difficulties in keeping track of ordinary discrepancies, so as to

make the "porters" debit balance for the current month, must be similarly contended with each month, in making a balance of the ledger debit "arrears." Like other parts of the work, the ledger accounts have to be sectionally balanced before the figures become reliable and acceptable for insertion into the general balance sheet. The credit side of each trader's account in the abstract of ledger accounts book requires to be posted up and aggregated into a summary. If each separate account is made to balance, the summary of the totals must necessarily balance, provided the copying and additions have been correctly done.

The collector's counterfoil check receipt is an excellent form, because (1), an unauthorised person going as a collector to collect a ledger account, if unprovided with the receipt forms, could not subscribe the usual form of receipt given by the authorised collectors, and the trader consequently would not make the payment; (2), the counterfoil shows the day's collections that the authorised collector has made, and thus the embezzlement of money by a collector becomes more difficult, and if committed, is likely to be discovered sooner; (3), the form provides a space for the actual sum paid to be filled in, and it thus becomes unnecessary to remark on the receipt "received on account," so as to cover the deductions unpaid waiting investigation.

CHECKING "PAID ONS" PAID OUT, WITH THE ABSTRACT CREDITS.—It has been before explained that a "paid on" is money paid out upon goods, and that the aggregate total of the "paid ons" upon the abstract station summary is an allowable credit to be entered into the general balance sheet. Thus it will be easily seen that the total of the cashier's "paid on" book for the week or month should agree with the abstract summary total. This happy state of things will not come to pass as a matter of course, and hence it is necessary to check the items in the "paid on" book with the "paid ons" in the invoice tissue copies.

The same system of progressively numbering the "paid on" amounts can be done as explained for "paid" amounts. Then the items as they stand in the invoice tissue copies can be taken seriatim by the pro-numbers, and matched with the corresponding items in the "paid on" book.

The discrepancies that will arise are (1), amounts that have been invoiced *within the month* but for which the cash has not been paid out until after the close of the month's accounts, and such items will form either "no debits" or unpaid "paid ons;" (2), amounts that were paid out in the previous month, such amounts lying in the outstandings, and hence the "paid on" credits must be given to the outstandings; (3), amounts paid out in the current month but not invoiced within the month, such will form outstandings, and come up again the next month same as number two; (4), amounts that have been paid out in current month but which were invoiced the previous month when they became "no debits," same as number one—such amounts are taken from the last month's "no debits," and become in the current balance sheet special credits; (5), amounts over abstracted which become "no debits;" (6), amounts under-abstracted which become outstandings.

ABSTRACTING AND ABSTRACT BOOKS.—Abstracting for balancing purposes, is the collecting and recording of the debit amount in

detail, and that portion of the credit amount comprising "paid ons" and overcharges. An account is opened with each station receiving and sending traffic. The entire totals of the invoices which include weight, paid on, paid, to pay, undercharge, overcharge, porters, posted, with the date and invoice number, are therein recorded. It forms a ledger of totals of invoices to and from stations, very similar to a tradesman's separate accounts with each of his customers.

Formerly it was the general plan to write the totals of the invoices into abstract books, and then re-copy the totals from the books on to abstract sheets. This plan is now somewhat in disuse, the same as explained with respect to ledger accounts. The totals now are very generally written direct on to the abstract sheets, and these sheets are tissue copied at the end of the month into tissue abstract books, and thus the labour of the second copy is economised. The plan answers well, because no permanent abstract record is needed; all that is required being accurately compiled totals, and when these totals are attained the details have become useless.

Every month, returns which, if copied from the abstract books, should be exact copies, are to be sent to the Clearing House in London for the foreign traffic. Thus Aberdeen will send totals of the invoices received during the month from Manchester, and Manchester in like manner will send the totals of invoices sent to Aberdeen during the same time, and by comparing the two statements, one station becomes a check upon the debit and correctness of the other. When the returns agree or are made to agree, the Clearing House apportions the month's receipts derived from the two stations between the companies over whose lines the traffic has passed. There is an allowance made to each company for terminal expenses, such as loading or unloading, cartage, &c., and the remainder is divided by mileage. The total number of miles between the two stations yields so much per mile, and each company receives its portion according to its mileage. The following illustrates the method by which this is worked out:—

**SPECIMEN OF CLEARING HOUSE SETTLEMENT ABSTRACT FROM
STATION A TO STATION B.—GOODS.**

STATION DEBIT.																
	A B C Co.						X Y Z Co.						Weight.			
	Dr.			Cr.			Dr.			Cr.			Carted		Not Carted	
	Paid and to Pay.			Paid on.			Paid and to Pay.			Paid on.						
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	T.	C.	T.	C.
A Station, - -	6	13	2	8	19	9	76	9	6	...	...	...	...	...	828	5
B Station. - -	23	11	5	...	...	...	165	19	4	1	6	4	19	9	1125	3
	30	4	7	8	19	9	242	8	10	1	6	4				
Station Debit, -	26	4	10	...	...	...	241	2	6	...	...	...	

Gross Receipts (station debits),				£	s.	d.
TERMINALS.				267	7	4
A B C Co.,	1s. per ton, not carted,			73	12	0
X Y Z Co.,	"	"		73	12	0
TOLLS (special).						
A B C Co.,	-	-	-	2	18	4
				150	2	4
				117	5	0

WORKING OF THE MILEAGE DIVISION.

A B C Co., 10 miles.			
N O P Co., 23	"		
X Y Z Co., 20	"	£117 5 0	
	53)	117 ²⁵⁰⁰⁰	
		106 (221226	
		<hr/>	
		112	221226
		106	10
		<hr/>	
		65	2212260
		58	
		<hr/>	
		120	£22 2 5 260
		106	
		<hr/>	
		140	221226
		106	23
		<hr/>	
		340	668678
		818	442452
		<hr/>	
		22	5088198
			<hr/>
			£50 17 7 898
A B C Co., 10 miles.		£22 2 5	221226
N O P Co., 23	"	50 17 8	20
X Y Z Co., 20	"	44 4 11	
		<hr/>	
		£117 5 0	4424520
		<hr/>	
			£44 4 11 120

Monthly abstract returns are in most cases sent in for the local traffic, but they are sent to the audit office of each line, as there is no division of the traffic to be made, but principally proof to be obtained of the correctness of the debit and credit of each station.

The labour of making detailed local returns is avoided on some lines by the agents merely sending a monthly summary of the station totals of the inwards and outwards abstracts for the month. If, on comparison at the audit office, the totals of two stations are found not to agree, each station has then to give details, so that the difference may be detected. If the entries made in the abstracts are carefully checked at the stations every week, the audit office has seldom to call for the details or separate totals of the invoices.

When written abstract books are used, it must be borne in mind in preparing a new abstract book for *foreign* traffic, care and foresight is necessary. Some abstract clerks will page a fourth of the book and commence heading the leaves for certain stations. After a few months time this fourth of the book is filled up. He then pages another fourth, and reheads certain leaves for certain stations, and so on to the end of the book. Thus, as the book becomes nearly full, the accounts of one station are entered in three or four different places. Perhaps, also, the index will be on one or two pieces of paper, which are loose at the end of the book, and incomprehensible to any but the writer.

This is unsystematic, unmethodical, and slovenly. When an abstract book is paged through, divide the pages by the number of letters in the alphabet, omitting any that are seldom the commencing letter of stations you trade with, such as Q and Z. Apportion to each letter a certain number of leaves, deducting one or two from one letter and adding to the other as may appear necessary; thus, when the book is completed, the entries for each station will be all together, from the date when the book was commenced until it is finished.

In preparing a local abstract book, a clerk knows exactly the number of stations he has to deal with (except on a very long line), and can divide his book between them with such judgment that, when it is completed, the leaves will be all filled and the entries to or from stations be altogether in date order. He will of course have to allot the greatest number of leaves to those stations with which he has the largest number of entries, and *vice versa*. Every abstract book should have a clean and distinctly written folio list. It is convenient to have this both in the first page of the book and also on a piece of cardboard, which latter an abstract clerk can place on the desk before him. With foreign lists enter the stations alphabetically, leaving about half a dozen lines between each letter for additions.

If an abstract clerk wishes to get his work done punctually, he should make out his abstract sheets every week, and then at the end of the month he has no difficulty in getting his returns ready in time, otherwise he is almost sure to be behind, as he crowds the performance of a month's work into a few days.

From the remarks on the importance of the additions of invoices, it should be a golden rule with an abstract clerk never, under any circumstances, to abstract an invoice unless it has been previously

checked *and bears the initials* of the person who checked it. It should be the pride of an abstract clerk never to send an inaccuracy form away without being able to write his own station "correct." This he may easily do, if he will but check his work. Many regard this checking as a serious and formidable affair; but if you get some one to "call off" and check weekly, then at most stations, with quickness, it may be done in about an hour.

The errors in the foreign abstract returns should be, each month, brought against the office or clerks concerned, and the percentage of errors on entries watched from month to month.

An abstract clerk should be well up in railway station geography. He should be familiar with all the stations on his own line, and their position, also all junctions on his own line, and the names of the foreign companies joining his company at these junctions. He should be able, on the moment, to tell on what line of railway any particular station that may be named is located. He should, for route purposes, know the names of the foreign junctions that traffic passing from his station has to go over to reach its destination.

The abstracting of both outwards and inwards invoices should be done with regularity each day. The outwards tissues can usually be abstracted the following day after date, but the inwards invoices may be late arriving, and can only be obtained from the delivery office the second, third or fourth day *after arrival*, according to the expedition with which they are cleared and the unloading and delivery of the goods performed.

Inwards invoices, as cleared, should be handed each day from the delivery to the abstract or accounts office, and receipts given according to the pro-numbers on the invoices. The last day for closing the abstracts for the month the inwards abstract clerk should make a search in the delivery office for late arriving invoices, but yet dated within the current month; and if he should find any, arrange with the chief delivery clerk to have them cleared specially and passed forward to the abstract office quickly. The abstract clerk, when taking over the invoices from the delivery clerk, should see that each invoice bears the initials of the clerk responsible to check the charges in the delivery office, and any invoices not so initialed should be refused until checked and initialed.

There are generally four invoice abstract books at a station, and sometimes more—(1) foreign outward, (2) foreign inward, (3) local outward, (4) local inward. Part of each book is apportioned for (1) goods, (2) coal and coke, (3) minerals, (4) cattle. Unless this is done and each description of traffic kept separately, it is impossible to tell the total of each branch of traffic on the line, and therefore a separate monthly summary has also to be made for each kind of traffic.

Some audit offices do not keep coal and coke separate but class both as minerals, and upon some lines the coal and coke is not required in summary form, but is simply given on the balance sheet in total.

It must be mentioned that foreign stations refer to all stations that are not situated upon the same line as the reader may be engaged upon.

To a Great Northern Company's abstract clerk all stations other than those on the Great Northern Railway are foreign to Great Northern Company's employees.

Each foreign abstract sheet must bear the name of the company upon whose railway the station is located, otherwise where there may be two stations at one town belonging to different companies the Clearing House is ignorant of which of the two companies carried, and is entitled to the share of the traffic.

The sheet must also show the route the traffic travelled, that is the names of the junction stations where the traffic passed off one line of railway on to another. Without this information the Clearing House does not know, when there happens to be two routes between the given points, the particular companies concerned in the traffic. If traffic is alternately or occasionally sent by both routes, separate abstract sheets require to be made for each route.

It is likewise necessary with foreign traffic to show the number of the waggon and the company owning it, because the company owning the waggon is entitled to one-eighth of a penny per mile for the use of the waggon when it is travelling on the line of another company.

To facilitate the Clearing House clerks comparing the abstract sheets from two corresponding stations, the month's totals must be subdivided into weekly totals, that is a total must be made ending the Saturday for the week or part of the week's invoices. If a month ends on a Wednesday, or any day forming part of a week, there will be an additional total required for the odd days. In addition to the week's totals a grand monthly total must also be made of each sheet. Thus the weekly totals added, and the full month's invoice totals added, afford a cross check as to the correctness of the additions. The Clearing House clerk, if he finds, when checking the sheets from the forwarding and receiving stations, that the weekly totals agree, he is saved the further labour of checking and comparing each day's invoices on the two sheets; and as the Clearing House clerk keeps a diary of the time he is employed on each company's work, it is important to shorten his work as much as possible.

INACCURACY STATEMENTS.—A very careful clerk should be selected in an accounts office to deal with inaccuracy statements, and one thoroughly acquainted with debit and credit. Errors in the accounts are unfolded by these statements, and the adjustment of such errors requires experience in all the intricacies of the work. If the errors brought out by the statements are not rightly treated in respect to the next balance sheet, further errors are created. Dealing with these statements is like debit and credit patchwork. When debits are elicited and posted into the outstandings, it is very important that full particulars be given, otherwise the clearance of the amounts from the outstandings is almost impossible. Any clerk posting inaccuracy items into the outstanding book in *globo*, or with insufficient particulars to facilitate their subsequent clearance, should be severely reprimanded. The principal kind of errors unfolded by the inaccuracies are as follows :—

- (1.) Amounts abstracted "to pay," should be "paid."
- (2.) " " "paid," " " "to pay."
- (3.) "Paid on" omitted, or under-abstracted.
- (4.) " " abstracted in excess of invoice total.
- (5.) " " under-abstracted from invoices.
- (6.) Amounts abstracted "to pay" in excess of invoice total.
- (7.) " " "paid" " "
- (8.) " " "to pay," less than the invoice total.
- (9.) " " "paid," " "
- (10.) Amounts of "paid on" abstracted as "paid" money in error.
- (11.) " " "paid" money abstracted as "paid on" in error.
- (12.) Carted weight abstracted as not carted weight.
- (13.) Not carted weight abstracted as carted weight.
- (14.) Invoices omitted to be taken to account.
- (15.) Invoices taken to debit twice.

To facilitate the regular division of through traffic receipts and the closing of accounts, the practice between railway companies parties to through booking is, that *all* invoices for goods and minerals, and *all* parcels way bills issued *bona fide*, shall be accepted and taken to account at the receiving station.

The following reasons do *not* form a ground for the refusal of invoices or way bills:—

- (1.) The non-receipt of the traffic, ropes, chains, packing, &c.
- (2.) The issue of a second or duplicate entry for the same traffic.
- (8.) That the consignment has been already locally invoiced with "paid on" charges from an intermediate (transhipping) station.

(The entry, however, must be made within three months of the traffic being forwarded.)

The receiving station, however, can refuse to accept and take to account invoices or way bills as follows:—

- (1.) When a company owning the receiving station is not party to through booking between the two stations concerned.
- (2.) When two invoices are issued to two companies at one town for the same consignment, the company who did *not* carry the traffic can refuse the invoice or way bill.

LEDGER ACCOUNTS.—An agent should be very careful never to open a ledger account without written authority, otherwise he takes upon himself the responsibility of giving credit. Let him obtain the written authority of a superior officer of the company. If then a loss by bankruptcy or otherwise should occur he is clear and blameless, unless he has been incautious in recommending a trader for a ledger account, to misrepresent facts through not making proper inquiry as to the trader's respectability and trustworthiness.

A carrier is by law empowered to demand his hire (carriage) before he accepts the goods to carry; he is also empowered to withhold delivery of goods until his lawful hire shall have been paid, that is, however, only for the particular goods upon which the carriage is due.

The legal power of stopping or holding consignments of goods for carriage due on previous consignments of goods *already delivered*, is not, however, vested in a carrier, either by common law or under any railway act of parliament. By a special contract drawn up on paper and duly signed, a trader can give a carrier, by agreement, such a power. It is therefore a wise plan never to grant a monthly ledger account unless the trader gives the company this special lien upon his goods, by agreement. As an agent may not give consignees credit under the form of a ledger account, it is the more objectionable that he should give credit under the form of a porter's account, which is often allowed to run on unpaid for weeks and becomes practically a monthly ledger account.

The conditions laid down by the different companies for opening ledger accounts are very much the same. It is a practice understood between railway companies parties to through booking, to give a month's credit for through invoiced traffic to traders who have a good financial standing. The following are the conditions of the Manchester, Sheffield and Lincolnshire Company, which appear to be good ones:—

- (1.) All goods must be properly described, the correct weight given, and the nature and contents of the packages stated at the time of delivery to the company or the agent.
- (2.) A consignment note must be tendered to the company with the goods.
- (3.) The company's goods ledger accounts are made up monthly to the last day in each month, they are sent from the accountant's office by the 10th or 12th of the following month, and must be paid in full, and in cash, unless claims for errors and damages have been made and allowed previous to collection.
- (4.) All due and proper attention will be given by the company to all complaints and claims, provided they are made in writing to the goods manager within one clear day after delivery.
- (5.) Credit will only be given to parties having accounts open in the company's ledger, at stations mentioned in their original request for a ledger account; fresh application, on a proper form, must be made for credit at additional stations.
- (6.) The company have the right to detain any goods in their possession on lien, should the account not be paid in accordance with the above conditions.

The Great Western Railway Company have a more elaborate clause in respect to the lien as follows:—

“The goods and waggons belonging to or sent by the person having a ledger account, shall be subject to a general lien in favour of the company, for all moneys due to the company from such person on any account, taking effect at the option of the company at any time after failure of the payment of any sum appearing due on the credit accounts, or in the case of bankruptcy, insolvency, or stoppage of payment, to take effect at any time for any sums appearing due in the books of the company.”

The entries in the ledger, when a tissue copying ledger is not used, being simply copies of the entries in the invoices, the work is straight forward and without difficulties. It is important that a ledger clerk should not accept the calculations, rates, and charges as correct, unless the invoices have been checked and are initialed. It is very annoying to a collector of accounts for traders to be able to point out errors of rates or calculations. It makes a sad mess of the accounts, and it all results from the ledger clerk posting entries from invoices that have not been checked. A ledger clerk should be able to make correct additions, or he will cause endless labour and trouble. It is the best plan to make additions twice, commencing first from the top and then from the bottom of the column. If a ledger clerk can add up pounds, shillings, and pence together in one addition, after the plan of a noted railway accountant, all the better.

COLLECTION OF ACCOUNTS.—This is a very harassing duty in some districts, and especially when trade is bad and money scarce. There is a very serious burden likely to fall upon an agent and collector when traders fail and are in debt to the company, as the question naturally arises at headquarters, "Were proper exertions made to get the money?" An agent may say he called several times and could not get the money, and he may or may not be believed, according to the general opinion formed of him. It is recommended for every agent or collector to keep a pocket book, with the names of traders, alphabetically arranged, and whenever they call for money, and fail in obtaining it, to put down in ink the date and time they called, as well as the "put off" given for non-payment. This is something to produce to satisfy a manager that the collector really performed his duty; and traders knowing such memoranda are kept will, for their reputation's sake, fear to "put off" too frequently. When an agent calls several times without success, he should report the matter to headquarters, prefacing his letter with an extract from the pocket book: he thus transfers the responsibility, and puts the matter into the hands of those who can use stronger arguments and measures than himself.

In cases of through traffic, if the Clearing House is not advised within two months after an account becomes due and it should turn out a bad debt, then the company responsible to have collected the money has to bear the entire loss; but if such advice has been given, then, the other companies participate in the loss. It is therefore wise to comply with the rule of advising in those cases where the money has not been paid within the period of limitation, whether the person owing it is doubtful or not, but this must be done through the manager, and not direct by the agent to the Clearing House. In like manner "paid ons" for sea freight, &c., not collectable, are divided between the companies interested in the traffic, provided the receiving company has not been negligent in trying to collect.

If a ledger deduction book is not kept, then memoranda of deductions have to be taken on loose scraps of paper. These frequently get lost and mislaid, and the result is, the accounts do not get credited with the amounts that have been deducted and are disputed; and after

a few months there is a stir made to clear off balances, when nobody knows how these balances have arisen or of what they consist, and the accounts are found to be in a state of confusion, which reflects discredit on the agent or collector.

If no ledger deduction book is supplied, rule a foolscap book for the purpose. Never settle a ledger account until an entry is made of the deductions. Make the total of them, which, added to the cash, must be made to agree with the total of the account rendered. Clear deductions as speedily as possible, for nothing will make an agent stand so well in the eyes of his accountant as *small outstanding balances*.

The system of ledger debit notes is excellent in preventing deductions and errors. As soon as a debit arises against a trader, either as "paid" upon outward goods or "to pay" upon inward, make out a note of the amount, which send to him with a remark at the bottom that the item will be posted to his account, and if he has any objection to make, to do so at once, and if not to return the note signed. In this way the trader acknowledges his responsibility, item by item, as his account is posted; and at the end of the month there are no deductions or disputes, as they have been disposed of currently one by one. When things go all right without this system, it is in many cases not worth while to entail the extra labour, but when traders are litigious and constantly disputing items, and cut up their accounts at the month's end, it operates as a check upon them. Questions of dispute are thus raised and disposed of at the time, and not left to accumulate into a budget at the time of settlement to form an excuse for delaying payment.

Persons collecting ledger accounts should be required to use the counterpart check receipts both for sums over and under two pounds. The counterparts ought at any time to show what accounts have been collected and otherwise. No checks, however, of this nature will make a dishonest person honest, but there are some men who would yield to temptation, provided they thought that they would not easily be found out, and therefore by multiplying the discovery checks a weak man is often deterred, or in other words, he is strengthened to be honest. All ledger cash collected for the day should be paid over to the head cashier at the station the same evening.

When it is convenient for a trader to pay his ledger account at a station other than where the goods have been dealt with, the station agent nearest to the trader's business premises can collect the amount. The ledger summary provides for accounts being transferred in this way from one station to another. Some railway companies use a counterfoil voucher book for these transfers from one station to another—(1), there is the block; (2), a voucher sent with the entries by the sending station which has to be signed by the receiving station and returned to the sending station agent, who attaches this voucher to the balance sheet as an authority for taking special credit; (3), a voucher which is sent by the sending station to the receiving station, and which the receiving station agent signs and sends direct to the audit office to acknowledge receipt of the debit. Without something of this kind a station agent might falsely profess to transfer ledger accounts for large

amounts to other stations, which might end in some form of embezzlement.

PORTERS' SETTLEMENT BOOKS—CASH.—The books in general use for cash purposes are (1), porters' settlement book or cash book; (2), cash summary book; (3), cash note remittance counterpart book.

From the "sectional balances" it will be seen that the cash as received must be detailed in three divisions (1), arrears cash; (2), cash outwards "paid;" (3), cash inwards "to pay." At small stations this can be done in one book by using three separate columns and a total column. At large stations this is improved upon by using a separate settlement book for "arrears," "paid," and "to pay" cash. Then alternate books are required for each day, so that a double set or six books have to be used, the object being that the accounts clerk on a Tuesday can be marking off Monday's cash, and during this time the cashier requires another book to record Tuesday's payments.

Subsidiary porters' settlement books should be suppressed as far as possible. Clerks not regular cash clerks, may have to take cash during the night or early morning, but the books in which they may record such collections should not be recognised as accounts books. All such collections should be re-copied *fully in detail* by a cash clerk into the recognised porters' settlement book.

Where the company perform their own cartage, and the carters at night pay in to the cashier the total "to pay" amounts on delivery sheets, it saves trouble to the cashier to enter only the *total* of each sheet. When this is done to save time in the cash office a supplementary porters' settlement book is often used in the accounts office to enter up the separate entries from the delivery sheets for checking purposes.

The cash summary book is merely a debtor and creditor book, in which the daily totals of the porters' settlements, together with the ledger cash, must be entered as debits, and the daily totals of the "paid ons" and cash remittances as credits. The remittance book is simply a counterpart note book, in which is described the quantity of gold, silver, and number of notes and cheques remitted to the bank. The chief cashier, on receipt of the cash, signs and returns to the agent the accompanying counterpart note as a receipt voucher. *An agent should take care he gets these vouchers as acknowledgments of the cash having been received*, and when they are not sent duly, write for them.

It should be observed as a golden rule by an agent, or whoever receives cash, *never to touch it* until an entry has first been made in the proper book. When this is adhered to there is no difficulty in balancing cash at the close of the day. It is a bad plan for an agent to retain surplus cash and only make two or three remittances during the month, because mistakes will then be difficult to trace. The amounts constituting the daily debits of the cash book should be remitted daily, so as to constitute the daily credits.

An agent should take care that every clerk under him is in the Guarantee Society, and it is well to get the manager's acknowledgment in writing for this, and then the agent cannot be reflected upon for

trusting a clerk with money when to do so may be necessary. Allow no person, however, to retain cash longer than is absolutely unavoidable, for the cash cannot be in a safer place than with the company's bankers. It is the best plan for only one person about a station to receive cash. therefore an agent should appoint the most suitable and trustworthy clerk if he cannot do it himself. A receipt should always be given for all money a clerk may hand over, as otherwise should such clerk prove dishonest, or mistakes occur, he may say he paid the agent money and then account for the absence of a receipt by stating that the agent *did not always give a receipt when money was paid to him*. Clerks receiving money should be settled with every evening, as it is offering temptation to men of some dispositions to let money remain in their hands. Except at very large stations where a responsible cashier is kept an agent should make up his cash for headquarters, and it is safest for him personally to deposit it in the cash-box on the train, which is only opened by the cashier at headquarters. At the close of the month the cash book should be balanced and should agree without showing any such difference as cash in hand. No station should have a cash balance except in very special cases, sometimes at a junction station where "paid ons" have to be paid to another company. (See Disbursements). As a rule a station should not be allowed to show a cash balance. It is a growing evil and has many times resulted in agents becoming dishonest from the temptation of "borrowing" being put in their way.

Monthly totals in the porters' settlement books should show separately the total cash received on account of inwards, outwards, and outstanding amounts as well as the grand total.

It should be occasionally seen whether persons other than the authorised cash clerks, and who unavoidably have to receive money during the night time or early morning, pay over their collections *promptly*. The cashier, when taking up the cash from them and giving receipts for same, should watch this and report irregularities. When men are allowed to hold over money it is to some a great temptation, and every endeavour should be made to keep such temptation out of their way.

It should be a well understood rule that cash collectors on no account must mix their own money with that of the company, and proper safes, locked drawers and cash bags should be freely supplied to prevent anything of this kind. The effect of mixing money is, that if a clerk omits to enter an amount he has received into his cash book, when he comes to make up the total of his day's receipts, such amount not having been included, there will be an overplus of cash, and the money may perhaps remain in his pocket until the debit may be brought against him some weeks afterwards. Loose habits of this kind too frequently lead to evil consequences. When there is no mixing of the cash and at the close of the day an overplus is found, enter such overplus in the margin by the day's total, and remit such overplus in the usual way to headquarters. The overplus will, in due course, be placed in the "no debits," and remain there in suspense ready to meet the omitted amount as soon as it shall have been discovered.

PORTERS' OUTSTANDING OR PORTERS' LEDGER BOOK.—These two books in form are pretty much the same, the distinction depending upon how they are used. If all debits, as explained under "Current Porters' 'to pay' debit and its clearance," are entered into this form of book, and the cash marked off in the book, it makes the book a porters' ledger. On the other hand if the cash is "marked off" on the invoices, and only amounts unpaid and outstanding at the close of the month posted into the book, it is then properly termed an outstanding book.

All invoices dated, say December, are of course entered into December accounts. An invoice, with amounts "to pay," sent from Aberdeen, December 31st, may not reach its destination, at Bristol, for several days, and Bristol cannot remit the cash to headquarters before the month has terminated: thus, a credit cannot be taken for the amount as "cash remitted" in December balance sheet, although the invoice must be taken to debit. Bristol agent will show a credit under the heading of outstandings, as the amounts were outstanding on the last day of the month, because not paid to the head cashier: hence the necessity of a porters' outstanding book. It is customary on the outstanding sheets to remark, that the item was paid on such and such a day (if it has been paid), and if not, the reason why must be explained, so that the audit may know that the item is or is not actually outstanding at the time the balance sheet is sent in. It will then be seen that all amounts in December invoices, not actually remitted to the cashier at headquarters by the morning of 1st January, must be entered up in the outstanding book, and appear as outstandings. A transcript of the porters' outstanding book is sent with the balance, on a form for that purpose, to explain in detail the total entered on the balance sheet as outstanding. On some lines, to save labour, it is customary to sub-divide the outstandings into "cash paid" up to the 15th (say of January), and actual outstandings, the agents being required to only send detailed particulars of the latter, their word being taken that the cash amount has been actually paid.

If proper precaution be taken, there is no occasion for any amount to be outstanding without the goods being on hand, though exceptional odd items may of course occasionally creep in. When making out January accounts, the December items, and any previous that are still unpaid, have to be brought forward again as outstandings. This creates extra work in writing, not to speak of the trouble of collection. It is the most ridiculous thing possible to let traders take away goods without paying, and then run after them to get the money, when at the outset the agent has the law in his own hands, and can justly require the money to be paid at the time of delivery. The greater license allowed traders in this respect, the more they will take. An easy-going agent may waste (for waste it really is) half his own and a clerk's time in collecting money that should have been paid at the time the goods were delivered.

An agent should not allow a trader to have a regular credit through a porter's account, unless with the written sanction of a superior officer, otherwise, in the case of a bad debt, the responsibility

will rest with the agent. Where an agent is authorised to open petty porters' accounts there should be a limit fixed as to the amount, and if that amount should be exceeded, either a ledger account should then be opened in proper form or all credit stopped.

Amounts of outstandings may be disposed of otherwise than by the cash being paid (1), by recharge; (2), by transfer to ledger; (3), by overcharge; (4), by special allowance; (5), reclaiming of amounts out of the "no debit" book. On many lines the outstanding book only admits of a remark being made as to how credit has been obtained, and the item is not carried forward as outstanding in the next account; but the form here given shows much more clearly how the item has been marked off, while its value is still more exemplified in the balancing and comparing of totals.

Particular care should be taken to state, in the remark column of the outstanding sheets sent to audit, the cause of the item being outstanding, if it has not been paid when the balance sheet is sent in.

Audit offices are more frequently precise at fits and starts with outstandings than as a regular thing; but if an agent allows his balancing clerk to be negligent in clearing outstandings, he causes a storm to brew that may seriously damage, if not ruin, his reputation. *It is a good plan for an agent to go through the outstandings either weekly or periodically, and make his balancing clerk explain what has been done towards clearing each item.*

If goods are not on hand to represent items outstanding, an agent should have bills made out weekly or monthly, debiting the persons who have delivered the goods without obtaining the charges at the time. If such persons are unable to collect the accounts, require them to pay same.

Tissue copies of all statistical returns of traffic (other than abstracts, ledger accounts, &c.) should be taken in a book specially set apart for the purpose, and then the labour of re-compiling returns is avoided should copies be subsequently required.

"PAID ON" BOOK.—This is used for collecting together from the outward invoices the particulars of all "paid ons." It is the best plan to have several money columns (1), actual cash "paid ons;" (2), recharges and transfers, and one or two spare columns. You may need one column for "paid ons" allowed to carting agents for special cartage or boitage. The "paid ons" should be *entered up daily*, and the amounts checked with those on the consignment notes. Errors are then discovered without delay, and can be rectified while new. On some lines it is customary to take receipts in the "paid on" book for cash "paid ons" from the person to whom the money is paid. Two "paid on" books are kept for alternate months, and one book accompanies the balance sheet to audit. A better plan is to have a "paid on" voucher, which the sender or person receiving the "paid on" can sign, and these vouchers can be attached to the "balance" sheet *as proof that the money has been paid*. The accounts clerk should closely scrutinise the signatures given on the "paid on" vouchers for the money, question any signature that looks suspicious, and protect the company from theft.

Clerks cannot embezzle money to any extent and get credit by recharge, as no station will accept a recharge unless they know how it is to be cleared. A recharge of "paid on" unextended will not pass as a credit without special authority.

The form of "paid on" book into which the "paid ons" are entered from the outward invoice tissue copies, has been much improved of late years. In fact, the "paid on" book has assumed a debtor and creditor form, and it is therefore now more than ever necessary to make a sectional balance of the "paid ons." On the debit side there are columns for (1) invoice date, (2) number, (3) station, (4) sender, (5) consignee, (6) species, (7) amount, (8) invoice total, (9) reference to debiting invoice with date, number and station.

The "invoice total" extension column on the debit side is the same as explained under porters' ledger and is of great service in balancing. The column headed "reference to debiting invoice" is a useful column at stations where there are many transfers and re-invoicing, as the inwards "to pay" amounts cleared by the re-invoicing of same amounts as "paid ons" is thus easily traced and matched.

On the credit side the amounts are extended into various columns according as the "paid on" credit is disposed of. The columns are headed as follows:—(1) amount paid, (2) amounts to agents, (3) cartage or boatage debited in balance sheet, (4) re-invoice entries, recharges and ropes, arrears, (5) same, current, (6) unclassified column, (7) total extension column of amounts cleared, (8) total extension column of amounts carried to next month. It is well to have one or two blank columns, so that each station may head and appropriate a column or two for the specialities appertaining to its particular work. The totals of columns 7 and 8 should agree with the total debit column, provided the extensions have been correctly made.

"Paid ons" remaining outstanding and unclaimed for a period of six months are then usually brought to final debit on the balance sheet, and a list of same sent to the audit office at the time.

Sometimes a "paid on" amount will be included in the "to pay" carriage but omitted from the "paid on" column on the invoice, and hence the sending station will not get credit through the abstract summary of station totals for the cash that may have been paid out. The legitimate way to adjust this error is for the receiving station to pass an overcharge sheet and allow the sending station to recharge the amount "paid on" and "to pay." If a "paid on" total on an invoice has been omitted or under-added the same short credit will arise requiring to be adjusted by overcharge.

Sometimes a "paid on" total amount on invoice may be over-added or a sum in excess of the proper sum charged in the "paid on" column and not added to the "to pay" carriage. In these cases the adjustment is by undercharge invoice, because a larger credit has been obtained than is correct, and the forwarding station requires to be redebited.

It ought to be a strict rule, that the inwards abstract clerk should on no account abstract any recharge invoice, unless initialed by the

clerk responsible to examine and check same. In the event of the abstract clerk neglecting this check, he should be charged with the amount of the recharge if irrecoverable, and in any case all the trouble and labour involved in providing for the debit should be fixed upon him.

MONTHLY BALANCE SHEET.—This is the grand conclusion of the work and the “bridge of sighs” to many railway men. Some conquer it and become pretty fair accountants, while others give it up in disgust, and ever afterwards hate the name of a balance sheet. With an unsystematic mind, the making of a balance sheet is like unravelling a tangle of silk—a man pulls first on one side and then the other, but cannot get it right, until from a want of patience he really begins to believe that it is impossible. The systematic, persevering man, however, disentangles knot after knot until he accomplishes his object. As far as our observation has gone, there are not many railway men who can make a balance at a first class station. Where men fail is in attempting to make a balance, *without first balancing the work in detail*. The chief object should be to balance and separately account for the outward debit, the inward debit, and the arrears or outstandings. By doing this you sub-divide and drive the errors into comparatively small portions of the month's work. Thus it is made easier to discover the discrepancies than if you attempt to balance the whole month's work together.

The progressive order in which the sectional balances should be made is as follows:—

- (1.) The cash balance.
- (2.) The agent's debit “paid” and “to pay.”
- (3.) The ledger arrears.
- (4.) The appendix debits and credits, and the others can follow as convenient.

To balance the work in sections it is of course necessary to keep the detail credits on account of outwards, inwards, and outstandings separate, so that they (the credits) may balance with the separate debits.

If the sectional balances agree, the balance sheet then becomes child's play. You have only to look after the special items that may trouble you, and by investigation you soon place these right. You know that the figures in the sectional balances admit in detail of a balance: it is therefore a question of correctly placing the figures in the sheet, and disposing rightly of the odd conflicting amounts. If the actual receipts in the porters' settlement book have not been all remitted, you have to see what is the deficiency in the remittance, and if a credit is obtained in another way, for instance, as “paid-ons,” cartage allowances, or cash in hand.

If a particular section will not balance, run over the additions first, and if this does not unfold the error, check the debit; that is, compare the “paid” or “to pay” invoice total amounts (as the case may be) on the invoices with the abstracts, to test the correctness of the latter. If this does not unfold the error, take the invoices and make the additions of the debits “paid” and “to pay,” at the same time see what has

become of each item, whether it has been paid, and *is in* the porters' settlement book, or is owing, and *is in* the outstanding book. Some items may be overcharged or recharged: if so, see that the credit has actually been taken. These measures are pretty sure to unfold the error.

At some stations, where the entries on the invoices are not very numerous (for then it is difficult), errors can be discovered by copying out the items separately, to or from each station, from the porters' settlement and outstanding book, and adding the transfers. You have then the credits in the same form as the abstract debits, namely, under the heading of each station. It is a very simple matter then to check the two, and make them agree by detecting and rectifying the errors.

Where an agent does not make his own balance sheet, it is a good plan to require his balancing clerk to hand in the sectional balances as a precaution against a balance being cooked.

We have known instances where a deficiency that could not be discovered has been smuggled into the outstanding book, and got rid of by collecting undercharges and not debiting them against the station. This is very bad.

One of the greatest helps to facilitate a balance being correctly made is to strike a weekly balance of posted and porters. At many stations there are difficulties in balancing the porters weekly, but with the posted it may always be effected. Order the abstract clerk to make out a weekly summary of the debit—undercharges—overcharges—posted—and porters, and require the ledger clerk to make a statement of the totals posted to each trader's account for the week. The posted amount in the summary and the statement should be made to agree. The value of these returns being made out is that they give an agent proof that the work is up. The items on these weekly returns added up should, with the alterations, make the total of the monthly summary, which is also taken from the abstracts.

Make each clerk balance his own work. The balancing clerk has no right to find out the errors that prevent the ledger and abstract clerks balancing their work. When those who cause errors have the trouble of finding them out, they are apt to be more careful in future.

If the balance sheet is past due and the figures cannot be made to agree, the best plan is to send on to the audit a trial balance sheet with the difference shown as "undiscovered balance," promising by letter to send on a corrected balance sheet as soon as the error can be traced.

FALSEIFICATION OF ACCOUNTS ACT, 1875.

88 and 89 Vic., cap. 24.

Section 1.—"That if any clerk, officer, or servant, or any person employed or acting in the capacity of a clerk, officer, or servant shall wilfully and with intent to defraud, destroy, alter, mutilate or falsify any book, paper, writing, valuable security or account which belongs to or is in the possession of his employer, or has been received by him for

SECTIONAL BALANCE—"PORTERS'" OUTWARDS AND INWARDS.

N.B.—See under Cash Balance for Index to letters and numbers.

Dr.	"Porters'" current outwards "paid."				"Porters'" current inwards "to pay."			
	A.S.	£	s.	d.	A.S.	£	s.	d.
To "porters'" local total from abstract summary, - - - - -	A.S.	48	367	2 9	A.S.	50	2,031	2 7
" " foreign " " " "	A.S.	49	46	0 8	A.S.	51	240	13 0
" " appendix debits, - - - - -	A.D.	73	0	9 10	A.D.	73	10	4 10
		313	13	10		2,389	0	5
<hr/>								
Cr.								
	C.B.	£	s.	d.	C.B.	£	s.	d.
By amounts of cash remitted to credit of "porters," - - - - -	C.B.	18	211	5 8	C.B.	17	1,389	5 9
" cleared by certified overcharge sheets, - - - - -	...	...	...	...	O.	85	0	13 1
" to be brought to credit as appendix credits, - - - - -	A.C.	80	0	0 9	A.C.	79	2	11 8
" in "no debits" last month, since invoiced, and others, of "no debits" reclaimed after being taken finally to debit, - - - - -	N.D.	151	0	12 9	N.D.	145	15	15 4
" of "to pay" debits that have been cleared by their conversion into "paid on," the goods having been re-invoiced to other stations, - - - - -	...	...	...	...	...	147	1	13 9
" where goods have arrived un-invoiced, and are then re-invoiced forward to another station with a "paid on," being an estimated charge—the "paid on" then becomes a "no debit" in that current month, and when the debit invoice subsequently arrives next month, the amount has to be taken out of the "no debits," - - - - -	P.O.B.	107	5	12 7	P.O.B.	106	117	7 9
" being refunds of cartage amounts overcharged, previously brought to debit, - - - - -	...	...	...	...	B.S.	146	2	2 3
" of undercharge balance, - - - - -	...	...	...	...	B.S.	148	0	7 6
" of carting agent's balance, - - - - -	C.A.	121	46	0 8	C.A.	118	241	2 7
" debited to carting agent, upon goods he has delivered and collected the cartage (when a carting agent's balance is not made), - - - - -	...	...	...	...	...	...	...	...
" of transfer to current ledger accounts, being amounts astray in "porters'" account, - - - - -	...	...	...	...	...	...	...	...
" of rebarges (when no "paid on" balance is made), - - - - -	...	...	...	...	...	...	...	...
" of outstandings, actual, - - - - -	C.O.	152	26	12 7	C.O.	149	247	10 6
" " where cash has been paid at the closing of the balance sheet, - - - - -	C.O.	150	23	8 8	C.O.	144	163	11 8
		313	13	10		2,389	0	5

SECTIONAL BALANCE—PORTERS' ARREARS.

See under Cash Balance for index to letters and numbers.

<i>Dr.</i>									
To total amount of outstandings from last month's balance, - - - - -	B.S.	22	£	675	s.	16	d.	11	
" amount of overpaid cash becoming "no debits," - - - - -	...	---	---	---	---	---	---	---	---
				675	16	11			
<i>Cr.</i>									
By amounts cleared in current month, viz.:—									
Cash paid, - - - - -	C.B.	16	298	3	11				
Overcharges certified, - - - - -	O.	54	11	0	10				
Goods transferred and re-invoiced to other stations credited, - - - - -	P.O.B.	53	20	12	7				
by "paid ons," - - - - -	...	---	---	---	---				
Irrecoverables, as per authorised list, - - - - -	...	---	---	---	---				
Old "no debits" reclaimed on face of balance sheet, - - - - -	B.S.	56	4	3	3				
Current "from "no debit" book," - - - - -	N.D.	53	32	16	8				
Amounts transferred to current ledger accounts, - - - - -	L.C.	58	32	18	4				
Foreign claims recharged, - - - - -	...	---	---	---	---				
Undercharges reclaimed on face of balance sheet, - - - - -	B.S.	59	0	1	0				
"Paid ons" - - - - -	B.S.	57	0	18	0				
Credit note balance, - - - - -	C.N.	60	4	14	8				
Carting agent's balance, - - - - -	C.A.	61	1	12	3				
Appendix - - - - -	A.G.	62	1	7	10				
Outstandings - - - - -	B.S.	63	257	8	8				
				675	16	11			

SECTIONAL BALANCE—LEDGER CURRENT.

Dr.													
To total posted of local inwards summary,	-	-	-	-	-	A.B.	46	£	980	s.	4	d.	1
" " foreign "	"	"	"	"	"	A.S.	47	123	11	6			
" " local outwards "	"	"	"	"	"	A.S.	44	196	13	11			
" " foreign "	"	"	"	"	"	A.S.	48	37	3	6			
" transfers from porters' arrears,	-	-	-	-	-	P.A.	58	32	18	4			
" " current,	"	"	"	"	"	...	---	---	---	---			
" total of "no debits" affecting ledger accounts,	-	-	-	-	-	N.D.	114	0	5	3			
" " cartage	"	"	"	"	"	B.S.	115	0	10	3			
" " appendix "	"	"	"	"	"	A.D.	66	3	1	3			
									1,374	8	1		
Cr.													
By total of summary of ledger accounts,	-	-	-	-	-	B.S.	116	£	1,353	s.	8	d.	1
" amounts omitted from accounts, to be entered next month—	}					C.O.	117	31	0	9			
" posted to porter's outstandings this current month, to be transferred to ledger accounts next month,													
									1,374	8	1		

SECTIONAL BALANCE—LEDGER ARREARS.

<i>Dr.</i>									
To balance from previous month's outstandings, - - - - -	B.S.	98	£	1,314	s.	17	d.	6	
" overpaid cash posted to "no debits," - - - - -	---	---	---	---	---	---	---	---	---
				1,314	17	6			
<i>Cr.</i>									
By cash paid, - - - - -	C.B.	15	1,087	13	11				
" "paid ons" transferred to other stations owing to senders or consignees at the other end paying cartage, - - - - -	P.O.B.	99	18	4	0				
" overcharges certified, - - - - -	O.	84	5	2	0				
" transfer of amounts to porters' outstandings owing to such amounts having been wrongly posted to ledger accounts, - - - - -	---	---	---	---	---				
" cartage previously debited now to be refunded, - - - - -	...	---	---	---	---				
" old "no debits" reclaimed on face of balance sheet, - - - - -	B.S.	101	0	2	0				
" current "from "no debit" book," - - - - -	N.D.	100	5	0	8				
" "paid ons" previously debited and now reclaimed, - - - - -	...	---	---	---	---				
" undercharges - - - - -	B.S.	102	1	9	1				
" "balance," - - - - -	U.	94	0	2	6				
" irrecoverable amounts, - - - - -	...	---	---	---	---				
" credit note balance, - - - - -	C.N.	103	0	1	7				
" cash book - - - - -	C.B.	23	0	15	0				
" amounts still outstanding balance, - - - - -	B.S.	104	146	6	0				
				1,314	17	6			

SECTIONAL BALANCE—SUSPENSE “PAID ONS” (“P.O.B.”) BOOK.

See under Cash Balance for index to letters and numbers.

N.B.—There being many “paid ons” unpaid, instead of entering them into the “on debits,” an outstanding “paid on” book is kept and the debits and credits affecting it treated each month as a sectional balance. The totals are treated on debit and credit side of balance sheet each month the same as the “no debits.”

<i>Dr.</i>			£	s.	d.
To amounts brought to final debit, - - - - -	B.S.	105	5	13	1
“ “porters” inwards current balance clearing “to pay” } debits, - - - - -	P.I.	106	117	7	9
“ “porters” outwards current balance clearing “paid” } debits, - - - - -	P.O.	107	5	13	7
“ carting agents, - - - - -	...	...	...	...	...
“ ledger arrears clearing outstandings by “paid on,” - - -	L.A.	99	18	4	0
“ “porters” - - - - -	P.A.	85	39	12	7
“ cartages recharged and debited specially in balance sheet, -	B.S.	108	3	7	7
“ appendix items cleared by “paid on,” - - - - -	A.D.	68	4	11	4
“ postages recovered, - - - - -	...	...	...	...	...
“ cattle current balance, - - - - -	C.	109	0	8	4
“ cash book balance “paid ons” transferred to the credit } of cash, - - - - -	C.B.	4	279	16	4
“ balance “paid ons” not paid as shown in monthly totals, -	B.S.	110	362	14	4
			837	2	11
<i>Cr.</i>			£	s.	d.
By total of goods “paid on” book, - - - - -	P.O.A.	111	458	7	6
“ cattle - - - - -	C.	112	78	8	5
“ balance from previous month, - - - - -	B.S.	113	810	12	0
			837	2	11

SECTIONAL BALANCE—“PAID ONS” (ABSTRACT).

<i>Dr.</i>			£	s.	d.
To total amount of “paid on” book, - - - - -	P.O.B.	111	458	7	6
“ “paid ons” not brought down in invoice totals, credited by } overcharge, - - - - -	O.	87	84	14	5
“ appendix “paid ons,” - - - - -	...	...	...	...	...
“ “paid ons” over-totalled on invoice (say 1s. 6d. instead of 1s. 4d.), } difference brought to debit by issue of an invoice, and the } 3d. inserted in “paid” column, - - - - -	N.D.	123	0	0	2
			508	2	1
<i>Cr.</i>			£	s.	d.
By local outwards abstract “paid on” total, - - - - -	B.S.	133	386	15	6
“ foreign - - - - -	B.S.	184	119	17	4
“ appendix “paid on” totals, - - - - -	A.C.	78	1	6	5
“ “paid on” outstanding amount not brought down in total of } invoice, to be cleared by overcharge, - - - - -	C.O.	135	0	2	10
			508	2	1

SECTIONAL BALANCE—CARTING AGENTS.

<i>Dr.</i>			£	s.	d.
To inwards amounts arrears, - - - - -	P.A.	61	1	12	2
“ “ “ current, - - - - -	P.I.	118	541	2	7
“ “ “ to final debit, - - - - -	B.S.	119	0	0	9
“ “ “ postage, - - - - -	...	...	...	...	...
“ “ “ of cash received and afterwards refunded, - - - - -	C.B.	7	0	9	6
“ “ “ without debit, - - - - -	N.D.	120	13	14	5
“ outwards amounts arrears, - - - - -	...	...	...	...	...
“ “ “ current, - - - - -	P.O.	121	46	0	3
“ outwards cash credited through inwards cash, and required for } inwards current, - - - - -	...	...	...	...	...
“ outwards amounts without debit, - - - - -	N.D.	122	4	16	7
			607	16	8
<i>Cr.</i>			£	s.	d.
By total of carting agent’s current month’s account, as per balance } sheet, - - - - -	B.S.	123	607	16	8
			607	16	8

SECTIONAL BALANCE—CATTLE CURRENT "PAID ONS."

See under Cash Balance for index to letters and numbers.

<i>Dr.</i>							£	s.	d.
To total of "paid on" cattle book,	-	-	-	-	-	P.O.B.	112	72	3 5
" overcharges invoiced,	-	-	-	-	-	O.	88	5	10 3
" "no debits,"	-	-	-	-	-	N.D.	157	0	4 0
							78	17	8
<i>Cr.</i>							£	s.	d.
By total of local outwards summary,	-	-	-	-	-	B.S.	194	78	14 2
" foreign	-	-	-	-	-	G.O.	135	0	3 6
" "porters" outstanding,	-	-	-	-	-		78	17	8

SECTIONAL BALANCE—CATTLE CURRENT DEBITS.

<i>Dr.</i>							£	s.	d.
To total of local outwards summary,	-	-	-	-	-	B.S.	136	400	8 3
" foreign	-	-	-	-	-	B.S.	127	261	6 8
" local inwards	-	-	-	-	-	B.S.	129	10	1 6
" foreign "	-	-	-	-	-	B.S.	128	5	7 0
							947	3	4
<i>Cr.</i>							£	s.	d.
By cash paid,	-	-	-	-	-	C.B.	19	736	13 9
" "no debits,"	-	-	-	-	-	N.D.	130	0	10 3
" "paid ons,"	-	-	-	-	-	P.O.B.	109	0	3 4
" overcharges,	-	-	-	-	-	O.	86	3	12 9
" amount of outstandings,	-	-	-	-	-	C.O.	131	307	2 10
							947	3	4

SECTIONAL BALANCE—DISBURSEMENTS.

<i>Dr.</i>							£	s.	d.
To balance from previous month,	-	-	-	-	-	B.S.	136	91	1 9
" cash book balance,	-	-	-	-	-	C.B.	11	199	3 11
							290	5	8
<i>Cr.</i>							£	s.	d.
By credit notes,	-	-	-	-	-	C.N.	137	90	9 0
" foreign claims,	-	-	-	-	-		136	199	16 8
" balance outstanding,	-	-	-	-	-		290	5	8

SECTIONAL BALANCE—CLAIMS.

<i>Dr.</i>							£	s.	d.
To balance from previous month,	-	-	-	-	-	B.S.	139	164	17 10
" cash book balance,	-	-	-	-	-	C.B.	10	106	19 8
							273	16	10
<i>Cr.</i>							£	s.	d.
By credit notes,	-	-	-	-	-	C.N.	140	89	8 10
" balance outstanding,	-	-	-	-	-	B.S.	141	184	3 0
							273	16	10

SECTIONAL BALANCE—CREDIT NOTES.

<i>Dr.</i>							£	s.	d.
To disbursements,	-	-	-	-	-	D.	137	90	9 0
to "no debits,"	-	-	-	-	-	N.D.	143	6	9 8
" cash book balance,	-	-	-	-	-		140	89	8 10
" claims,	-	-	-	-	-	Cl.	140	89	8 10
" ledger arrears,	-	-	-	-	-	L.A.	108	0	1 7
" "Porters" "	-	-	-	-	-	P.A.	60	4	14 8
							191	3	9
<i>Cr.</i>							£	s.	d.
By amount transferred to balance sheet,	-	-	-	-	-	B.S.	143	191	3 9
							191	3	0

SECTIONAL BALANCE—APPENDIX CREDITS.

See under Cash Balance for index to letters and numbers.

<i>Dr.</i>							£	s.	d.
To transfers to "no debits,"	-	-	-	-	-	N.D.	76	4	10
" " undercharges,	-	-	-	-	-	U.	77	0	0
" " paid on " abstract book,	-	-	-	-	-	P.O.A.	78	1	6
" " inwards " porters' " current,	-	-	-	-	-	P.I.	79	2	12
" " outwards,	-	-	-	-	-	P.O.	80	0	0
" " porters' " arrears,	-	-	-	-	-	P.A.	83	1	7
" " overcharges,	-	-	-	-	-	O.	81	0	13
							10	11	9
<i>Cr.</i>							£	s.	d.
By total appendix credits in local goods summary,	-	-	-	-	-	B.S.	74	7	5
" " foreign " " " " " "	-	-	-	-	-	B.S.	75	3	6
" " local cattle " " " " " "	-	-	-	-	-	...	...	...	...
" " foreign " " " " " "	-	-	-	-	-	...	...	...	...
							10	11	9

SECTIONAL BALANCE—APPENDIX DEBITS.

<i>Dr.</i>							£	s.	d.
To total of local goods summary,	-	-	-	-	-	P.S.	64	25	18
" " foreign " " " " " "	-	-	-	-	-	B.S.	65	12	14
" " local cattle " " " " " "	-	-	-	-	-	...	...	...	...
" " foreign " " " " " "	-	-	-	-	-	...	...	...	...
							38	13	4
<i>Cr.</i>							£	s.	d.
By transfer to current ledger accounts,	-	-	-	-	-	L.G.	66	3	1
" " outstanding book,	-	-	-	-	-	C.O.	67	14	6
" " paid on " clearances,	-	-	-	-	-	P.O.B.	68	4	11
" " transfer to " no debits,"	-	-	-	-	-	N.D.	69	5	16
" " undercharges,	-	-	-	-	-	U.	70	0	0
" " overcharges,	-	-	-	-	-	O.	71	0	0
" " paid on " abstract book,	-	-	-	-	-	...	...	...	...
" " porters' " inwards current,	-	-	-	-	-	P.I.	72	10	4
" " outwards,	-	-	-	-	-	P.O.	73	0	9
" " cash book balance,	-	-	-	-	-	C.B.	27	0	1
							38	13	4

SECTIONAL BALANCE—OVERCHARGES.

<i>Dr.</i>							£	s.	d.
To balance from previous month,	-	-	-	-	-	B.S.	82	27	4
" " total overcharges from local inwards summary,	-	-	-	-	-	A.S.	42	44	2
" " " " foreign " " " " " "	-	-	-	-	-	A.S.	43	3	3
" " " " local outwards " " " " " "	-	-	-	-	-	A.S.	40	1	4
" " " " foreign " " " " " "	-	-	-	-	-	A.S.	41	0	15
" " " " appendix, -	-	-	-	-	-	A.D.	71	0	0
" " " " arrears debit currently treated,	-	-	-	-	-	...	...	...	...
" " " " affecting " no debits,"	-	-	-	-	-	N.D.	83	9	19
" " " " ledger arrears,	-	-	-	-	-	L.A.	84	5	2
" " " " porters' " " " " " "	-	-	-	-	-	P.A.	84	11	0
" " " " cash book, -	-	-	-	-	-	C.B.	3	3	16
" " " " porters' inwards current,	-	-	-	-	-	P.I.	85	0	12
" " " " outwards,	-	-	-	-	-	...	...	...	...
" " " " cattle, -	-	-	-	-	-	C.	86	3	13
" " " " carting agent's account,	-	-	-	-	-	...	...	...	...
							119	14	10
<i>Cr.</i>							£	s.	d.
By amounts of overcharges invoiced as "paid on" goods,	-	-	-	-	-	P.O.A.	87	54	14
" " " " cattle,	-	-	-	-	-	C.	88	3	10
" " total of certified foreign overcharge sheets, -	-	-	-	-	-	B.S.	89	12	10
" " " " local " " " " " "	-	-	-	-	-	B.S.	90	1	15
" " " " appendix " " " " " "	-	-	-	-	-	A.C.	81	0	13
" " " " overcharges in current outstandings,	-	-	-	-	-	C.O.	91	2	1
" " " " foreign uncertified and local unissued,	-	-	-	-	-	B.S.	92	42	9
							119	14	10

DEBIT AND "PAID ON" TOTALS FROM ABSTRACT STATION SUMMARIES.

	"PAID" DEBIT.		"TO PAY" DEBIT.		UNDERCHARGES.				PORTERS.		POSTED.		"PAID ON."
	£	s. d.	£	s. d.	Uninvoiced.	Invoiced.	Overcharges.	£	s. d.	£	s. d.	£	s. d.
FOREIGN INWARDS—													
Goods, -	...	...	RS 31	44 11 10	U. 35	6 6 9	U. 39	0 11 0	PL 51	340 15 0	L.C. 47	123 11 6	£ s. d.
Live Stock, -	...	...	RS 1:8	6 7 0	...	...	...	...	C. 126	5 7 0	...	...	£ s. d.
Coal and Coke, -	...	...	...	...	...	...	...	...	...	...	...	...	£ s. d.
Minerals, -	...	...	...	...	...	...	...	...	...	...	...	...	£ s. d.
FOREIGN OUTWARDS—													
Goods, -	...	...	...	...	U. 33	0 6 9	U. 37	0 5 5	P.O. 48	46 0 3	L.C. 45	37 3 6	119 17 4
Live Stock, -	...	...	...	...	...	...	...	...	C. 127	331 6 8	...	...	£ s. d.
Coal and Coke, -	...	...	...	...	...	...	...	...	...	...	...	...	£ s. d.
Minerals, -	...	...	...	...	...	...	...	...	...	...	...	...	£ s. d.
LOCAL INWARDS—													
Goods, -	...	...	RS 30	3 05 8 0 3	U. 34	24 0 7	U. 38	26 11 7	PL 50	2 931 2 7	L.C. 46	980 4 1	£ s. d.
Live Stock, -	...	...	RS 129	10 1 3	...	...	...	...	C. 129	10 1 5	...	...	£ s. d.
Coal and Coke, -	...	...	...	...	...	...	...	...	...	...	...	...	£ s. d.
Minerals, -	...	...	...	...	...	...	...	...	...	...	...	...	£ s. d.
LOCAL OUTWARDS—													
Goods, -	...	...	...	...	U. 32	1 2 7	U. 36	0 18 8	P.O. 48	287 2 9	L.C. 44	198 13 11	386 15 6
Live Stock, -	...	...	RS 126	8 0 0	...	...	...	...	C. 126	880 8 3	...	...	78 14 3
Coal and Coke, -	...	...	...	...	...	...	...	...	...	...	...	...	£ s. d.
Minerals, -	...	...	...	...	...	...	...	...	...	...	...	...	£ s. d.
TOTALS	1,490	11 5	3,636	1 6	31 14 4	28 6 8	49 5 6	3,632	1 11	...	1,237	13 0	£ s. d.

BALANCE OF PORTERS AND POSTED.

Total "paid,"	£	s. d.	Undercharges invoiced,	£	s. d.
"to pay,"	1,490	11 5	-	28	6 6
Undercharges uninvoked, -	3,635	1 6	-	49	5 6
	31	14 4	-	3,632	1 11
	5,047	7 3	-	1,237	13 0
	5,047	7 3		5,047	7 3

WORKING EXPENSES.

True economy consists in dispensing with everything costing money which is not positively essential—making everything which is actually in use last as long as possible, in fact, until it is quite worn out; and the avoidance generally of wastefulness and extravagance.

Clerkage and portage are the most expensive items of expenditure under an agent's control, and are a standing charge, week after week. It must therefore be an agent's study to do only that work which is necessary and indispensable. He should not allow traders or other stations to transfer work that does not fairly belong to his station. An agent should shorten and reduce the work to the lowest point possible—he should avoid tedious and laborious plans that create work, and do everything as simply as is consistent with carrying out the object in view. An agent should work a system that drives straight to the point he wants to gain, and not one that arrives at it in a round-about or indirect way—he should view the necessity of everything in a doubtful manner, and try to prove to himself that it is indispensable. If in any case an agent can effect a saving, let him dispense with the superfluity and save the cost, and apply the power saved in another direction where it is needed. This is the rule to be followed for the reduction of work. An agent, however, should never let his economical efforts verge to indiscretion so as to cripple the staff. He should remember the work of the station must be carried on well for his own credit; and the completion of the work will be demanded of him, however small his staff or appliances. Too strict adherence to economy will not save an agent from censure if the work remains undone. An agent should therefore not cripple his staff so that the work cannot be completed in time, nor unreasonably force more work or longer hours from his men than is customary. If an agent allows his zeal to work cheaply overcome his discretion, he will not execute the work well. He must strike the happy and difficult medium. An agent may reasonably protest against a curtailment of staff when he is confident such curtailment will bring discredit upon the station by the work not being done in time. If curtailment of staff is forced upon an agent let him submit without grumbling, and wait until it becomes practically evident that he cannot carry on the station in the way which is expected from him. He should not let matters get from bad to worse, but send his manager a respectful and thorough explanation with proofs showing why he finds it impossible to carry on the station, and at the same time ask for a removal. If an agent has any credit at all, he should not let it be

ruined by circumstances beyond his own control. No practical or reasonable manager would force an agent to extremes if he desired to retain such agent's services, but it must rest upon the agent to demonstrate clearly and indisputably that the curtailment cannot be sustained with the due performance of the work. Timid, apathetic agents, though in some respects good men, have been ruined in reputation merely from want of vigour and tact to explain the difficulties of the work. A statement of the number of the invoices inwards and outwards with the numbers of entries in each, also the number of entries in ledger and porters' settlement books, together with the number of letters received and forwarded will, in a general way, give a good idea of the amount of clerks' work at a station.

An agent should be sure to get a fair day's work from each man, and not allow laxity of fibre to grow among the staff. He should look sharp after his clerks and men, and keep them continually at work during business hours. This may be done in a quite firm way without driving. Labour is saved by correctness, and doing away with errors that take time to correct. Look at the labour an overcharge sheet causes. First, it has to be calculated and extended into the overcharge column of the invoice—secondly, the station from whence the invoice comes has to be advised, and the advice registered—thirdly, two overcharge sheets have to be made out, one for the audit and one for Clearing House (if a foreign overcharge)—fourthly, it has to be posted into the abstract book—fifthly, entered into an overcharge book—sixthly, added to other overcharges to make a total, and entered into the balance sheet. All this arises from an invoice clerk miscalculating, perhaps sixpence. No invoice should leave a station until checked and initialed by a second clerk. Time saved and quickness will enable an agent to get through much work. He need not waste even ten minutes in idle talk, nor let his clerks do so. If clerks want to debate metaphysics, let them do it after business hours. Clerks in an office where silence is kept produce most work. If a clerk "has push," and is eager to work, he does not waste time, and each five minutes during which he is unavoidably delayed vexes him, because he is anxious to finish the work in hand. Much time is frequently wasted during dinner hours. In many cases from two to three quarters of an hour beyond the allotted time is sometimes lost, either by leaving a piece of work when the attention is fixed, or being a few minutes late coming back, and then not settling to the work directly. At some stations it is customary to have also a tea hour, which is a repetition of the dinner interval. Thus from three to four hours are taken out of the day, and the consequence is, the work has to be carried on until nine or ten at night—gas is wasted, eyesight is injured, and recreation is lost; all this sacrifice being made that the appetite may be satisfied twice, and the legs exercised between office and home and between home and office. When the work will permit, it is better to work longer hours without an interval and finish early, so that the men may have the evenings for leisure.

Some agents are continually wanting alterations and additions of accommodation, which often will not re-pay the expense incurred, and

can frequently be dispensed with. Ere advising additional sidings, alterations to give more accommodation or extra office furniture, an agent should try and contrive, so that he can make a shift without the company suffering any loss or the work being inconvenienced. This at times may be done if agents will forego fancies, and look more to economy than making their stations and themselves important. Clerks and men often want something for use that will save them trouble, but can be done without. Let an agent make them prove the necessity of their wants, and ponder upon the permanent return likely to be derived from the expenditure of money before recommending such expenditure. It is not economy to make a requisition for stores ere those in use have been entirely worn out. An agent should see that his men do not, by the improper use of any article, spoil it for its legitimate purpose. This may generally be detected by computing the time the article has been in use. An agent should view the remains of tools worn out before authorising their removal, he may then see that they have not been lost or stolen and really require replacing.

Stationery is often too profusely demanded by agents and supplied from stores, which leads to its waste. At some stations new blank forms may be found in disorder in almost every drawer; thus they get creased and soiled and become unfit for use, and then get burned or used as waste paper. As a rule an agent should keep two months' supply of forms on hand, one in reserve and one in use—that is, if the stationery is supplied monthly; if oftener, a less supply will do. Each clerk should have his appointed drawer in which he should keep *only sufficient* forms for his month's consumption; all the rest of the forms should be kept in order and smooth under lock and key—not on account of their value so much, as to make each man feel he cannot riot in plenty, having only just enough to serve for his work. It is the kicking about of a quantity that causes waste and makes a litter. Forms of the same kind should be kept in one bundle together, and as supplies are given out to clerks the number remaining should be noted, and it can then be easily seen at the close of each month, when making the requisition, how many forms of each kind are on hand, and how many are required to keep up the supply. The disorder in which forms are kept gives rise to waste. It would in the end prove economical if all forms were served out in blocks of thirty, fifty or one hundred, gummed at the edges, top or side, the same as is done with post office telegraph forms.

An agent should make his men understand that nothing must be unnecessarily used, and the consumption of coal among other things may be economised. Fires need not be kindled in a morning too long before they are wanted, nor more fires than are necessary kept burning during the night. The fires in the goods office, booking office, waiting rooms, porters' rooms and pointsmen's huts should not be kept burning when not wanted; yet at the same time an agent need not be niggardly over a little coal, as the great thing is to provide a sufficiency, but to avoid waste. The porter who tends the fires and gets the coal from where it is stored, should be made to understand that he is personally responsible for its economical use. He should also understand that he

must keep the coal locked up and prevent any person about the station carrying away coal for fires outside the station.

In winter, at most stations, there is a great quantity of oil used for lamps, points, buffer cleaning, &c. The shunters and some of the porters have each a lamp, but it is very questionable whether it is wise to let the men take their lamps home with them. There may be a less consumption of oil if the lamps are left at the station. A progressive number may be marked or painted on each lamp and a row of nails along a wall may be numbered to correspond. Each lamp, when not in use, should be hung upon the proper nail, say at night when the men leave work. Where a lamp room and lamp man are provided, the lamp man should be made responsible for the custody of the lamps when out of use. The men in such cases should be forbidden to take home their lamps, except under particular circumstances, at the discretion of the agent. When lights are no longer necessary in signals, have them put out. It should be the duty of the watchman or other suitable person to put out the signal lamps as soon as day dawns and when the semaphore can be seen from a distance.

Gas also requires looking after, so that it is not unnecessarily consumed. Each clerk or shipper should be required to put out the gas at his desk when ceasing work. Sometimes clerks leave an office at night with the gas full on, and it may thus continue burning to waste for several hours. This is reckless and makes the station gas account more than it need be. Each clerk, porter, or whatever he may be should understand that when the work is done the gas must be either put out or lowered. Let an agent have this carried out and he will soon find a decrease in the company's gas bill. Gas in waiting rooms, urinals, and other places, after the majority of the trains have departed, can be lowered. There should be special gas cocks, to turn off or lower different sets of gas jets. One man should be made responsible for going round and regulating the gas, according to the instructions given him by the agent from time to time. At night time, when an up train (or *vice versa*) is expected, it is not, at some stations, necessary to have the gas burning in the platform lamps on the down side; if not, it should be regularly lowered or put out, but not if there is any danger of passengers going there and stumbling in the dark, and thereby meeting with an accident. Signals are sometimes lit with gas, and when such is the case and the gas cannot be got to burn, the burner may be unscrewed and an oil lamp substituted. As far as possible breakages of every kind should be prevented, and the staff made careful by charging breakages against the men in fault. Breakages from skylarking or rank carelessness, the cost of the repairs should, without hesitation, be deducted from the pay of the offender.

To economically study the company's interest an agent must save all he can and get all he can. A penny a day in each of twenty little matters, in round numbers, is say thirty pounds a year. That saved or gained by an increase of traffic at twenty stations would be six hundred pounds a year added to the company's revenue. So let an agent look after the pence and the pounds will look after themselves.

The following form is a useful one to show, either weekly, fortnightly, or monthly, the cost per ton for clerkage and portorage. Sometimes it is necessary also to work out separately the cost per ton of some particular staple traffic, such as cotton, grain, wool, hops, &c. It is likewise useful at some large stations to keep a daily record of the number of loaded waggons, inwards and outwards, to see whether the traffic is increasing, decreasing or keeping stationary. The use of these returns, showing the cost of working, is that the staff may be decreased if the traffic shows a decrease, for it is of little use to know, after the money has been expended in wages, that the cost per ton has gone up. The decrease of staff is one of the most difficult things devolving upon an agent. At small stations there is no margin to deal with, for the same staff would do a third more work, if it offered, while it is often difficult to combine the kind of work done by two men and make one man do it. For instance, you cannot keep one passenger porter on duty from 6 a.m. for the early trains, until 12 p.m. for the late trains. The length of hours necessitates two men, although neither of them are fully and constantly employed. At a large goods station porters can be discharged if the work decreases, but here if the falling off is temporary and likely to only last for a couple of weeks, paying off permanently appointed trained men is objectionable. It, however, may be met if the permanent men are always kept low and supplemented by supernumeraries or extra men. The extra men may be only employed from day to day, so that they can be paid off at a day's notice. But there is a strong, and we think unwise, prejudice against an extra or special pay bill. The non-practical critic is alarmed at the term "extra" and conjectures that it means some charge over and above what should exist as a regular charge. Trained clerks are also difficult to replace if discharged from a temporary lull in the traffic. The only thing that can be done is to have supernumeraries that can be treated like the porters. During a decrease of traffic, however, is a time when weak and inefficient clerks may be weeded out. Looking relatively at the total amount saving by discharging fifty or a hundred men, over a few weeks, the amount of money represented by their wages is comparatively small. The cost of traffic wages is comparatively a small item to the cost of material, and we have often contended that the true reduction should be in the purchase of material by the engineering and locomotive departments. Unfair pressure is too often put upon the traffic department of a railway to reduce men and wages while the other departments are allowed to expend large sums for material which could be well deferred until the traffic improved.

Station, Week or Fortnight ending 18

Live Stock.		18	18	Increase.	Decrease.
Waggons Inwards, - -					
Waggons Outwards, - -					
		18 Tons.	18 Tons.	Increase.	Decrease.
Local Goods Outwards, -					
Foreign " " -					
Local Goods Inwards, -					
Foreign " " -					

Week or Fortnight ending }18...	No. Persons Employed.		18	18	18		18	
	18	18	£ s. d.	£ s. d.	Total Tons.	Cost per ton	Total Tons.	Cost per ton
Do. ....18...								
Agent, - - -								
Clerks, - - -								
Porters, Outwards,								
" Extra, &c.,								
" Inwards, -								
" Extra, &c.,								
Shunters and Yard								
Staff, - - -								
Petty Expenses, -								
Shunting Horses } and Men, } days, at } per } day each, - }								

To compile this form, weekly or fortnightly, the pay bill must be brought into convenient shape. The inwards and outwards foremen and porters must be grouped separately, and it is also advisable to group the clerks in each office together. The clerks in each office require to be defined as to their work. The allotment of work may be defined by a descriptive name and a number, and then against this allotment of work place the name of the clerk who does the work. In this way, it does not matter how the man may be chopped or changed about, it can always be seen whether there are more or less men than the staff fixed as sufficient for the work of each office.

The following illustrates the plan :—

CORRESPONDENCE OFFICE.

No.		No.	
1.	Chief clerk (in charge).	5.	Assistant station correspondent.
2.	Claims correspondent.	6.	Junior clerk, outwards register.
3.	Public "	7.	" " inwards "
4.	Station "	8.	Office messenger (youth). "

ACCOUNTS OFFICE.

No.		No.	
1.	Chief clerk (in charge).	5.	Sheet abstract clerk.
2.	Balance clerk.	6.	" Paid " and " paid on " clerk.
3.	Outstandings clerk.	7.	Porters' ledger "
4.	Book abstract "		

CASHIER'S OFFICE

No.		No.	
1.	Chief cashier.	2.	Assistant cashier.

INWARDS OFFICE.

No.		No.	
1.	Chief clerk (in charge).	6.	Delivery note clerk.
2.	Rate checking clerk.	7.	Early morning delivery clerk
3.	Carters' delivery sheet clerk.	8.	Storage check clerk.
4.	Delivery note clerk.	9.	Office messenger (youth).
5.	" " "		

INVOICE OFFICE.

No.		No.	
1.	Chief clerk (in charge).	5.	No. 3 group of stations.
2.	Inquiry clerk.	6.	Grain clerk.
3.	No. 1 group of stations.	7.	Tranship clerk.
4.	No. 2 "	8.	Office messenger (youth).

Once fix the identity of each clerk in respect to the duties to be performed in each office, and then it is easy to fill in the names of the persons who from time to time may be fulfilling the duties, and confusion is thus avoided as to what number of clerks are required and are allowed in each office. Whether there are only half a dozen or fifty clerks at a station the principle is the same, it is the office-holder to be looked to and not the individual who may hold the office. Fix the number of office-holders to form the staff of each office, and the rest is easy. The office-holders may, from a variation of traffic, have to be increased or decreased according to the circumstances that arise.

Each clerk in charge of an office, and each sectional foreman should keep the time their staff attend, and make out a detail list of same, weekly or fortnightly, according as the pay bill may be rendered, and report daily any clerks or others absent from sickness or otherwise. These lists should be first checked with the time book in which the clerks sign their names, and then used for compiling the pay bill. Any of the

staff absent, the cause, whether sickness or leave, should be mentioned. If medical certificates are supplied they should be attached to the list.

When it is the practice for men who are sick to receive an allowance from the provident society and no pay, a check should be in force to prevent their names being entered on the pay sheet during the period of their sickness. If orders are given for medical attendance out of a counterfoil book, the counterfoils can easily be checked with the pay sheet before its completion and mistakes avoided. It is very objectionable for a man to get his pay during sickness through an error on the pay sheet and then to have it deducted from him subsequently.

The terminal allowances on traffic are as follows:—

Carted traffic at London, - - -	^s 8	^d 6	per ton.
Do. elsewhere, - - -	4	0	"
Not carted traffic, station to station, - - -	1	6	"
Live stock traffic, - - -	1	0	per waggon.
Delivery of parcels, - - -	0	2	each.
Collection of parcels, - - -	0	1	"
Fish per passenger train, station to station, - - -	0	1	per cwt.
Butter, fruit, eggs and poultry, per passenger train, - - -	0	1	"
Minerals (except coal and coke), - - -	0	9	"

These amounts enable an agent to compute to a nicety, the sum apportioned out of the traffic receipts for the terminal expenses. The skill of the agent should be directed to see how much below these figures he can work the traffic.

INSPECTION.

WITHOUT periodical and systematic inspection, no true knowledge can be gained of the manner in which the details of the work are performed at a station. At some large stations where there are a number of clerks an agent cannot perform much of the actual details of the work himself, and inspection is therefore a very important branch of his duty, unless he has an efficient deputy to do it for him. Errors will of course show themselves at times, but there are very many that an agent cannot know without the aid of inspection. Small checks to prevent failures will fall into disuse, and then clerks coolly turn round and say "Such and such a thing has not been done for twelve months and we considered it had ceased to be necessary." Failures of this kind are only picked up by inspection, and by its aid anything once put into force is not allowed to get into disuse. It is especially in supervision and inspection that an agent unacquainted with details feels himself at a loss because he has no intuitive perception of the "test points" in the travel of the work, whereas an agent, master of the business, has no difficulty in this respect. A good agent knowing the results to be brought out in the progress of the work looks for their regular production, and in doing so keeps the staff always on the move. Inspection has the effect of making every subordinate perform his duty in the required manner, and unless an agent can get this done he is unable to produce good results in the work of the station. Systematic inspection does not receive the attention it deserves. Most agents trust to a subordinate fulfilling his duties, and if he fails they put him down as inefficient, forgetting that such subordinate might be made efficient by stricter supervision and a constant pressing demand being made upon him for the due performance of his work. In fact, agents must look after their staff closely if stations are to be worked well, and it is this looking after that we purpose to deal with under the head of inspection. The neglect of efficient inspection runs through the railway system generally, but there has been a great improvement the last twenty years with the larger railways in the inspection from headquarters. Inspection or examining work is like going over the one thing twice. Some officials look upon this as tedious, unnecessary, and a wasteful expenditure of time, labour and money. It is true there is very little to show for a day's inspection work, but still it may be said to be the oil that helps to keep the wheels going round. A certain set of results are required, but when an agent exercises no periodical plan of inspection whereby he can at any time, and at any point, detect the travel of the work, he is compelled to leave matters in a great measure to subordinates and haphazard, and, as a consequence, the desired results are not always attained.

It is a matter of curiosity to observe at each station how different are the portions of work each agent lays out for himself. At one station he confines himself to answering a few important letters and generally looks round. Another agent devotes himself to correspondence, working at a desk like a junior clerk, and losing sight of the importance of supervision and inspection. Then another agent takes to outside affairs, and devotes a large amount of his time to yard work, while his clerks in the offices are comparatively their own masters. While stations vary so much it would be quite out of the question to attempt to define the particular kind of work each agent should perform—he should certainly do a little of everything on occasions, *and avoid confining himself to the continuous performance of any one branch*—he should be engrossed in all the branches of the work as occasion may require, and as he may see gaps to be filled. It is in the selection of the things he should do, so as to make his influence cover the widest area, that his tact will indicate his generalship. He must be his own judge and task-master to a large extent, acting according to the circumstances of the current time, but always ready to *stand in the gap* to avoid blocks or breakdowns. Above all things, however, he should never omit the inspection of subordinates, or mischief will surely be the result.

An agent newly taking charge of a station generally makes many alterations in the work, having a full intent to carry on the business very perfectly, and in fact to re-organise, improve and surpass his predecessors. This is all very praiseworthy, and exhibits a laudable ambition. Care, however, should be taken that old plans are not discarded and new ones inaugurated, before sufficient knowledge has been gained of the peculiarities to be dealt with. Before introducing new plans an agent should satisfy himself how far those in use are of real service, which may be estimated by learning the end they were designed to gain, and the necessity for that end. Some thought and care should be exercised before knocking down plans which the preceding agent deemed necessary, and perhaps laboured hard to make workable. Systems and plans are, like houses, far sooner knocked down than erected. Not that it is advisable to procrastinate when it can be clearly seen that a plan is useless, as in that case an agent should at once effectually do away with it, but at the same time rashness is to be avoided. It is somewhat unfortunate where an agent considers that he knows everything, and that his predecessor was an ignoramus. It should be remembered that conceited people frequently fall from high places, much to the satisfaction of those over whom they tumble. After an agent has been for some time at a station, and has learnt its ways and peculiarities, many of his intentions to do this and do that will have passed from his mind; thus the threads of an improved system are often dropped and become lost, for it is improbable that an agent can view matters with such a scrutinising and reforming glance six or twelve months after he has taken charge of his station, as he could during the first few weeks, because then his mind was strung to reformation and amendment. Habit and every day routine deadens the observation. Many men grow dull and become fossilised by vegetating upon the fixed ideas of every day life, and are only succe-

tible of new or original ideas when such are forced upon them by change of scene, varying circumstances, or the discussion of their fellows. This natural weakness and imperfection should not be forgotten, but an agent should obviate it by constantly committing to paper good plans and advantageous arrangements. The mind is not always bent to manufacture ideas, but when it is in operation and excited by favourable circumstances take care nothing is lost. It is stated of an ironmaster of Stourbridge, long since deceased, that if he thought of any good thing when in bed at night, he would jump up, light a candle, and commit it to paper. How earnest in business must a man of this kind be, and failure with him is almost out of the question, for he is always ready with a bold front to meet difficulties, while temporary checks seem only to sharpen his perseverance.

It is recommended for an agent to note down on paper from time to time, as the thought strikes him (especially when newly taking charge of a station) such essential matters as he desires either at once, or subsequently, to incorporate into the organisation of the station work. When errors occur, let an agent hunt out the cause and apply such a remedy as will prevent a recurrence, except from casual oversight. Either the agent or his chief clerk should fix a day, once in every week or month, and then devote a few hours to inspect the work, as if he were a perfect stranger and unacquainted with everything at the station. The notes of special matters the agent makes from time to time will remind him to examine into these particular matters to see if they have been carried out by the staff. At a large station where an agent comes but little in personal contact with many of the staff, a periodical inspection by some intelligent person is imperative, as without it the shortcomings of the negligent are not detected, and the loose ways of particular individuals are consequently likely to be confirmed. A periodical inspection is the terror of careless clerks, and such men are only to be kept, in even a fair way, by constantly keeping them up to their work. It is unfortunate when an agent has not sufficient knowledge of the intricacies of the business to enable him to be a good inspector, for he is then generally unfit to discriminate between good work and bad work and cannot correct with ability and confidence. In acquiring the knowledge by groping as he goes, an agent is apt to lose both respect and caste with his staff. Subordinates will overlook and lose sight of many faults of temper in an agent, provided he shows them that he intimately knows the business, while, if they see he is deficient, many will covertly sneer and laugh at him. An agent's weakness and inefficiency will often breed discontent throughout a staff from the highest to the lowest. A serious wrong is done both to the public and the subordinates when an incapable man is appointed to a responsible station agency.

When inspecting it is a good plan to use sets of notes referring to each man's work, and then from one inspection to another, an agent can see how each little matter has been followed up and executed. By selecting broad sheets of paper, one set of inspection sheets may be made to last for six months or longer, and thus the labour of writing the questions each month is avoided.

When an agent signs *all the returns* rendered from his station, he may the more easily check the regularity of their transmission.

We have abstained from framing anything like a complete code of inspection questions, because it would rather produce confusion than afford help to an agent. Our object has been to give an illustration, by quoting a few leading questions in relation to different branches of station work, and to coach an agent into the way of using and compiling inspection sheets suitable for his own station. Each station has its own peculiarities, and a special kind of weakness incidental to its own staff. Those matters which time after time are proved to go right do not require constant inspection, while those matters which have a tendency to constantly go wrong require constant inspection, hence each agent must, from his own observation and stand-point, compile inspection questions suitable and necessary for his own station.

In addition to the particular questions to be inquired into, no inspection can be complete without an examination to see that all the books in each office are written up to date, and are clean, and that the writing is legible.

INSPECTION QUESTIONS—GENERAL.

	JANUARY.	FEBRUARY.
Are the books and papers which are out of use at the offices generally in neat order and clean, and are books and papers over six years old sold periodically for waste paper or sent to stores? - - -		
Is each clerk's drawer and stock of stationery in order? - - - - -		
Does the station time book for clerks show regular attendance, and who are the exceptions? - - - - -		
Are there any cases of one clerk entering both his own and another clerk's time in time book, for purposes of deception? -		
Is the duty fixed on any policeman, watchman, or responsible person to see that the office fires and gas are left safely each night, before the offices are closed? -		

INWARDS SHED.

	JANUARY.	FEBRUARY.
Is a proper check kept upon the men's time by inspector or foreman, and a list compiled each week or fortnight of the wages earned by each man, with a record of sickness and absence? - - -		

	JANUARY.	FEBRUARY.
Are dockets or a list handed to the foreman each fortnight of amounts outstanding for about thirty days back, so that search can be made to see if the goods are on hand, and why? - - -		
Is a foreman or responsible man left on duty as a watchman on Sundays, when the absence of the staff facilitates pilferages?		
Are the checkers supplied with the invoices by which to check the goods as unloaded when the invoices are actually on the station? (The practice of unloading goods and entering them in a rough memo. book, and afterwards checking the invoices by these memos. is a bad practice) -		
Is the foreman held responsible to lock all warehouse doors requiring to be locked, and to turn out the gas? - - -		
Are refused goods and small valuable goods kept by the foreman in a locked up "crib," or enclosure on the platform, to avoid the risk of pilferages? - -		
Are goods in loose order weighed both at the time of unloading and the time of delivery? (Goods pillaged once are very liable to be pillaged again) - - -		
Are the labels taken off the waggons as unloaded? if not, a reward of threepence given for each old label found on a waggon, and the amount charged against the unloader in fault will soon effect a change		
If it can be traced that any checker or foreman has delivered goods to a consignee without seeing that the delivery docket bears a receipt for the amount of carriage, such man should be charged with the carriage - - -		
Are goods, when being delivered to carts, checked on the platform before being actually put on to the cart? (The check should take place at the moment the goods are being lifted from the platform)-		

Do the delivery checkers initial the note, or in some form make a record by which the man may be identified who made delivery of each particular consignment of goods? - - - - -	JANUARY.	FEBRUARY.
Does the unloading checker in cases of damaged goods report (1), the probable cause of damage, whether sender's bad packing or company's bad loading; (2), whether likely to have been done before loading or in transit? - - - - -		

INSPECTION SHEET—DELIVERY OFFICE.

Is the arrival of invoices timed? - - -	JANUARY.	FEBRUARY.
Are invoices regularly pro-numbered on arrival? - - - - -		
Do the number of packages on each invoice appear to have been checked with the goods and the invoice initialed? - - -		
Are consignees of station to station goods duly advised of arrival, and receipts held on advice note delivery sheet for same? - - - - -		
Is storage regularly charged upon all goods liable to storage, and are the amounts regularly brought to debit? - - -		
Is demurrage on waggons do. do. ?		
Is a report book kept for unloaders to enter reports of damages to goods, and are such reports dealt with each day by correspondence with the stations concerned? - - - - -		
Are goods arriving "to weigh, charge and advise" attended to, and entries subsequently obtained with certainty? -		
Are the delivery sheets or books examined each day to see that proper receipts have been obtained for goods delivered? -		

	JANUARY.	FEBRUARY.
Are "transfer orders" for goods consigned "to order" properly stamped with a penny stamp and carefully retained? -		
In cases of "goods refused" and brought back from consignee's residence, are they duly dealt with and every effort made to relieve the company of the charge of such goods? - - - - -		
Are stations advised of undercharges and a check kept to see that undercharge invoices are issued, and reference made on invoice in proof thereof? - -		
Are stations advised of overcharges, and a reference made against the entry in proof thereof? - - - - -		
Are the debits on the received invoices extended daily to "porters" and "posted" columns and the total of the debit made to agree with the porters, posted and overcharges? - - - - -		
Are the truck numbers in waggon book daily checked with the numbers on invoices and trucks without invoices and invoices without trucks reported? - -		
Are proper receipts in delivery books or on delivery sheets held for all goods actually delivered, and the date and time of delivery noted? - - - - -		
Are receipts wrongly taken for goods in the office before the goods are actually seen and placed at consignee's man's disposal?		
Where persons taking delivery of goods cannot write, is their "cross" to their name initialed by the person taking the signature that it may afterwards be proved? - - - - -		
Are the rates, extensions and additions of received invoices checked, and undercharges and overcharges discovered <i>before delivery</i> of the goods is made, and are the invoices initialed in proof thereof?		

	JANUARY.	FEBRUARY.
When advice notes are posted are they entered in a postage book, and does the messenger, after posting same, initial book in proof of same? - - - -		
Are goods delivered without payment of the carriage? - - - -		
Are the received invoices carefully preserved and in good condition and progressive order easy for reference? - - -		
Are damaged goods, particularly tea, wines and spirits weighed at the time of unloading and discovery of the damage? -		
Goods arriving with invoices but without charges and with remark, "account to follow." Are these systematically dealt with to insure invoices with charges being obtained? - - - -		
Are all orders transferring goods "to order" from one consignee to another stamped with a penny stamp as required by Stamp Act? - - - -		
Are grain delivery orders in use, and do the consignee's carters bring these orders when coming for each load? (When grain is delivered in cart loads over several days these orders are useful and should be given to consignee when he pays the carriage and storage, and each cart load as delivered should be marked thereon) - - - -		
Goods unentered book. Is this book well kept, and neat, and does it contain consignee's signature when goods are delivered before arrival of invoice? (This kind of book is usually kept carelessly). Are entries referenced off to invoices, and steps taken to get invoices? - - -		
Is gate passes are in use is the system in efficient working order, or have there been cases of goods being stolen and taken out of premises without a pass or on a forged pass? - - - -		

	JANUARY.	FEBRUARY.
When goods have not been received, is a proper record made and continual pressure kept upon forwarding station to trace? -		
Are dockets made out for ropes upon which charges are debited, and such dockets and ropes handed to outwards department? Is a proper check kept upon the ropes and debits to prevent the first being lost and the second becoming a bad debt?		

INSPECTION SHEETS—INVOICE OFFICE.

	JANUARY.	FEBRUARY.
Are proper consignment notes obtained for all goods forwarded? - - - -		
If not on sender's printed form, are they signed by or for sender? - - - -		
Is the date and time each consignment note was received by the scalesman or receiver marked on it? - - - -		
Do the notes show a record of the weight and that the goods have been weighed or averaged, or sender's weight adopted? -		
Does the checker or loader initial the notes and put his check clearly against the number of packages? - - - -		
Does the loader record the number of articles, as grain, cotton, &c., put in each truck, for the invoice clerk to check and total, and compare with the number in body of invoice? - - - -		
Are consignment notes, as invoiced, pro-numbered and preserved in order, so as to be easy of reference? - - - -		
Are the invoice copies readable, and consignee's street residence given, also route forward from station invoiced to? -		
Are the rate authorities and alterations in the classification carefully preserved in a skeleton, initialed by invoice clerks and indexed up? - - - -		

	JANUARY.	FEBRUARY.
Have invoices for outward trucks regularly gone forward with them? What proof? Guard's receipt held? Invoices nailed to trucks? - - - - -		
Are the rates, extensions, and additions of <i>paid amounts</i> checked either before or after despatch of invoice, and invoices initialed in proof thereof? - - -		
Are the debits on the forwarded invoices extended daily to "porters" and "posted" columns, and the total of the debit made to agree with the porters, posted, and overcharges? - - - - -		
Are the truck numbers in waggon book daily checked with the numbers on invoices, and trucks without invoices and invoices without trucks reported? - -		
Are goods invoiced before being loaded and consequently before the waggon number has been written on note by loader? -		
Are invoices wrongly dated different to dates on which made out, to transpose debits wrongly? - - - - -		
Do the loaders remark in ink across the note when goods are loaded as tranships, that tranship bills may be made out for same? - - - - -		
Is a proper check kept upon the clerk's time, and absences from sickness or otherwise reported by chief invoice clerk? - -		
Are the checks and remarks on through tranship invoices made, and made in ink or indelible pencil, as to time received, reloaded and condition (if bad)? - -		
Are general orders affecting rates and invoicing preserved in date order in skeletons indexed and easy of reference?		
Is the public rate book open during office hours for reference, and alterations carefully posted from time to time? -		

	JANUARY.	FEBRUARY.
Are the company's bye-laws exhibited in a conspicuous space clearly visible to the public at the inquiry counter? - - -		
Is there a proper record of "paid" undercharges and overcharges kept daily posted up? - - - - -		
Is the insurance book used for all goods that may be insured, and the amounts paid taken to account? - - -		

ACCOUNTS OFFICE.

	JANUARY.	FEBRUARY.
Are the cash amounts in porters' settlement book periodically checked with the inward and outward debits on invoices? - - - - -		
Do the totals in the balance sheet agree with those in the books? (See remarks on Ledger and Balancing) - - -		
Is the balance in the cash book represented by cash, or can it be explained by vouchers? - - - - -		
Is a proper record kept of all amounts deducted from ledger accounts, and are attempts made to clear such outstandings? - - - - -		
What ledger accounts due are uncollected, and what sum do they amount to? -		
Are the carting agent's weights entered up daily? - - - - -		
Are the "paid on" vouchers examined periodically (daily or weekly), to see that proper receipts have been given for the money and stamps affixed when over two pounds? - - - - -		
Are received invoices duly examined when handed from delivery office to accounts office, to see that charges and totals have been properly checked and amounts extended? - - - - -		

	JANUARY.	FEBRUARY.
Is there a systematic examination of recharge invoices made before same are taken to debit? - - - - -		
Are audit debits, when taken to account, at once taken in hand and quickly cleared from outstanding book? - - -		
Are the abstract totals, after being entered on the sheets, "called off" and checked by a second person to reduce errors to a minimum? - - - - -		
Is there any evidence of the improper marking off of "no debits" to unfairly clear amounts which do not correspond?		
Are the carting agent's disputed charges in excess of what may be fairly expected, and are those standing open as outstanding well in hand for clearance? - -		
Where abstract books are kept are the entries on to books and sheets taken separately from the invoices, and the two, either daily, weekly or monthly, balanced as far as the station debits are concerned?		
Are the outstandings regularly transferred at such periodical times as provided for by the system? - - - - -		
Are the ordinary outstandings well in hand for clearance? (Take a chance shot at some amounts, and require explanation of the last thing done to get them cleared) - - - - -		
Are the amounts in the "no debit" book gone over periodically, and amounts matched with those in outstanding book and so cleared? - - - - -		
Is there a proper check upon the collection of demurrage, storage, insurance, wharfage, cartage allowances, and such other extra charges? - - - - -		
Are the carting agent's accounts for cartage carefully checked before payment? -		

	JANUARY.	FEBRUARY.
Are the totals in the accounts books made in ink and ruled off at the time the balance sheet is completed? - - -		
Are good copies retained of the abstract summaries and proper clear totals of the debit accessible? - - -		
Are the goods and cattle abstracts sent to audit office on the dates due? - -		
Are inaccuracy statements regularly dealt with on receipt and returned to Clearing House and audit office? - - -		
Make a return of the porters and ledger outstandings for each calendar month in arrear, showing number of entries and total amount for each month, - -		
Are the chief cashier's lodgments in bank or to headquarters examined daily and compared with his books and receipt vouchers for remittances? - - -		

CORRESPONDENCE OFFICE.

	JANUARY.	FEBRUARY.
Do the dates on letters received and the dates of the replies show that the correspondence is promptly answered? - -		
Are letters or memoranda put in order daily and made easy of reference? - -		
Is the postage book written up to date, and carefully and legibly kept? - - -		
Is a book kept in correspondence office, and written up to date, of inwards and outwards goods missing, and when goods have been missing, say for fourteen days, is an advice sent to goods manager? - - -		
Is a record kept in a book of goods received at other stations uninvoiced, by which goods lost or missent may be traced? - - -		

	JANUARY.	FEBRUARY.
Is the repeating of letters unanswered (beyond the time allowed) up to date? -		
Are each correspondent clerk's letters fairly in hand, and is each man's work free of unreasonable arrears? - - -		
Are good readable copies taken of all letters despatched? - - - - -		
Are the letter registers neatly kept and all columns written up to date? - -		

CASH OFFICE.

	JANUARY.	FEBRUARY.
Is the cash book regularly entered up at the time the cash is paid, and the cash daily remitted at the appointed hour? -		
Are the chief cashier's or banker's receipts for remitted cash daily preserved or gummed to the counterpart in remittance book? - - - - -		
Can the receipt of cash be restricted to a less number of receivers and so reduce the subsidiary cash books? - - -		
Do the persons who receive cash <i>pay all of it over daily</i> to the chief receiver at the station for remittance? - - -		
Is the total amount of cash as entered in cash book remitted daily, less "paid ons" and authorised voucher deductions? -		
Are the entries in cash book strictly confined to the cashier or his authorised assistant? (Any cash received by morning or night clerks should be entered in subsidiary cash books and transferred fully <i>in detail</i> by cashier to his book) - - - - -		
Are the "paid on" vouchers handed to the accounts office at the fixed days or periods? - - - - -		
Is the floating capital correctly represented by cash on hand and vouchers? - -		

	JANUARY.	FEBRUARY.
When on balancing the cash at the close of the day differences occur, and the cashier is cash over for which he cannot account, or cash short, what does he do? (He should in the margin facing his total make a written note in either case, and if he is cash over remit it, for it cannot belong to him) - - - - -		
Are the actual amounts of cash received entered into cash books irrespective of the amount debited against the station?		
Are "paid ons" entered as paid out without the cash having been actually paid, but in anticipation of making payment?		
Are the cash and "paid on" books totalled in ink at the close of each day? - -		
Where subsidiary "paid" and "paid on" books are kept in invoice office, are the entries in these books checked each night with the cashier's books, and discrepancies reconciled? - - -		

The London and North Western Railway Company require their travelling auditors to fill up a form in respect to the custody of the cash at stations, which is supplementary to the auditors' report. It contains such suggestive questions respecting the safe custody of the cash that we think that we cannot do better than quote it, as follows:—

Is there a safe at — station? and if so, state:—	
Size? - - - - -	-
Description? Maker's name, &c., - -	-
How fixed? - - - - -	-
No. of lock-up drawers? - - - - -	-
No. of loose cash boxes deposited in it? -	-
How many keys are there to safe door? -	-
Who holds them? - - - - -	-
Have any other persons access to them? If so, give names, - - - - -	-
How many keys are there to drawers in safe and to cash boxes, and by whom are they held? - - - - -	-
How many persons have access to them? Give names, - - - - -	-

Amounts deposited nightly :—	In Drawers or Cash Boxes in Safe.		In Body of S.F.
Largest amount—Cash, -	£ _____	£ _____	£ _____
Cheques, bills, &c.,	£ _____	£ _____	£ _____
Average amount—Cash, -	£ _____	£ _____	£ _____
Cheques, bills, &c.,	£ _____	£ _____	£ _____

Does any one reside at the station, or is any one on duty so near as to have it in charge, or is it left at night unprotected?

Are cash bags from other departments or stations received in this department for custody? If so, state what, how disposed of, and if duly signed for on receipt? -

Is the cash bag of this department sent to any other department for custody? If so, say where sent, and inquire if invariably sealed with the distinctive official seal of this station and department, and a signature obtained? If not sealed, has it been ascertained that the lock differs from those on any cash bags used by other departments?

Do you consider the safe and the general arrangements for the cash custody satisfactory? If not, what alterations do you suggest? Is any cash left out of the safe at night? If so, state under what circumstances? - - - -

If there is no safe, state the arrangements made for the custody of the cash during the night? - - - -

If you think a safe necessary, state the description? - - - -

YARD.

	JANUARY.	FEBRUARY.
Is any person responsible to keep a check on the arrival and departure of foreign waggons, to see that waggons are not detained beyond the allowed time, giving rise to demurrage? - - - -		
Are the waggon numbers in and out taken direct from the waggons and not from road bills, waggon labels or invoices? -		

	JANUARY.	FEBRUARY.
Are old disused waggon labels found on waggons sent to the stations where they should have been taken off, that the negligent person may be cautioned? -		
Are brake blocks on guards' vans, when not in efficient order, duly reported and the vans stopped from being used on trains?		
Do trains leave without side and tail lamps being attached to the guards' vans? -		
Do goods guards attend at the stipulated time before their train is due to start, and check the waggons on their train with their waggon road bill, and generally examine their train? - - - -		
Is there an occasional and unexpected examination of goods guards' appliances, which they are required by rules and regulations to carry in their vans? -		
Is there a proper expeditious system of passing goods invoices arriving with inwards goods trains to the delivery office?		

DEPARTURE OF PASSENGERS.

Accommodation for passengers at stations—idlers at railway stations—plan of railed in areas—French plan—French omnibus plan—modern London stations—small intermediate stations—crowds, and how to control—number of passengers that can be booked in an hour—appliances to deal with crowds—special staff for excursions—barriers for dividing crowds—iron railing down centre of platform—right angle barriers—checking tickets in carriages—hand trucking luggage from cabs to labelling place—French plan with luggage—street front door porters and policemen—marshalling departure passengers—checking tickets and seating passengers—passengers in carriages refusing to show tickets—shunting of carriages—preventing passenger re-entering another carriage—punching tickets—passengers riding in higher class—half loaded carriages—saloon or American carriages—travellers for setting trains—economising carriages, seating and packing passengers—separate carriages for junction passengers—passengers in goods vans—ladies' compartments—smoking carriages—STARTING PASSENGER TRAINS—guard to inspect train and to give starting signal—not to start before time is up—guard and driver to be sober—tender first—break power on train—position of head and assistant guards—time up by station clock—word from booking office that booking has ceased—closing of entrance to platform—passengers to be seated and luggage loaded—carriage doors closed—signals all clear—tail and side lamps—departure of previous train—succeeding train passing—ringing station bell—signal by agent to guard to start—porters to be trained as assistant guards—prisoners and insane persons, seating—requisites a guard should carry—excessive number of empty carriages on trains.

PASSENGER work, when contrasted with goods work, is less complicated, and a knowledge of it is acquired with less difficulty. The perceptive and observant form of brain is the kind best fitted for the passenger work, while the reflective form of brain is the kind most useful in the goods work. Passenger men should be quick, ready, and skilful at expedients on the moment. In the main they have not on one day to turn back to the work of the previous day, as in a sense each day's work is done in the day, for usually after a passenger walks away from the arrival platform at a station he is disposed of. The accounts relating to passenger work when compared with those of the goods are also found to be more simple, because each passenger pays the fare in advance, and the cash debit is restricted to the departure station.

The first essential in the construction and arrangement of a passenger station is, that it should be all-sufficient in affording full accommodation to the crowds of people who may frequent it. Free access to persons who desire to be carried by train, and free egress after having been so carried is the great end to be attained. But the free movement of passengers in and out of a railway station, must be strictly contingent upon a safe check, to prevent the company being defrauded of their legitimate fares by unscrupulous persons. To keep a check upon the small minority who would defraud the company if they could,

often causes the honest majority to suffer inconvenience. The first difficulty is to sort real passengers from idlers and other persons attending at the station to receive or see off their friends. Since railway travelling has become so common the meeting and parting at railway stations seems very much less than some thirty years ago, while the idlers appear to have increased, as a railway station is now frequented to obtain a little excitement, to see the people, to hear the news, and to read the titles of the new novels at the bookstall. Undoubtedly the bookstalls have largely increased the idlers.

The plan many years ago on the main line of the Great Western Railway, was to allow no person on the platform without a ticket or a platform pass, and the platform passes, even to passengers' friends, were then sparingly given. On a departure platform there were three railed in spaces for first, second and third class passengers, and the passengers after taking their tickets were ushered into these spaces which the public sarcastically styled pens. When the train was ready at a terminal station, or when the train arrived at an intermediate station, the passengers were let out of the railed spaces on to the platform. At an intermediate station, the throng of passengers alighting were allowed to pass along the platform before the passengers going on by the train were liberated from the railed in spaces. This plan possibly occupied a little more time, but it certainly prevented much confusion and reduced the bustle and elbowing incidental to the entanglement of two crowds, one of arriving and the other of departing passengers. The French plan was possibly formed upon this model, for at the large stations in Paris, after having taken their tickets, passengers are ushered down a long passage from which open three saloons or waiting rooms for first, second and third class passengers. These rooms run parallel with the departure platform, but the passengers are completely boxed up in them and cannot even see on to the platform. When the train is ready to receive the passengers, the sliding doors are opened and the passengers quickly pass out to take their seats. The first class passengers are allowed a minute or so start, before the second and third are liberated. The carriages are arranged in class to correspond in position with each class waiting room. The British biped who likes to meander up and down a railway platform, would raise a loud outcry if curtailed of his present liberty to do so. The French people, however, are drilled to an extent an Englishman would consider an interference with the liberty of the subject. In Paris if a person wants to ride in an omnibus, he goes to a stopping station and at once passes into an office and obtains a numbered check. Perhaps ten persons are waiting for the omnibus to come up. On its arrival, after some passengers have alighted, possibly four seats are vacant. Word is passed from the office to the conductor as to the lowest numbered check issued. The conductor calls out this number, standing before the omnibus door all the time. Whoever gives the conductor the check of the particular number called is allowed to enter the omnibus, and so on progressively, according to the numbers of the checks for three more passengers. The omnibus then goes on, leaving the other six expectant passengers on the pavement. They shrug their shoulders but display

no anger or excitement. It is very unfortunate for them, but quite fair. Those who are weak and cannot push and struggle, are thus protected against the strong who may be rude. The disappointed persons either wait for the next omnibus, or give up their checks and walk, or hire a special conveyance. It is strictly first come, first served.

The plan at some of the large modern stations in London and other cities, seems to work well. The several platforms are arranged in parallel lines, and railed off at the one end where the passengers pass on and off through gates. Outside the railed in platforms is an open area where the meandering is done. Thus the actual passengers can be sorted with certainty from the non-passengers, and the tickets can be perfectly checked, both on arrival and departure, and the ticket checkers can know with certainty those persons who have travelled from those who have not. The only objectionable feature is, that the three classes of passengers all straggle down the long platforms and sort themselves into different class carriages: For delicate ladies, and small children, and female third class passengers with babies and bundles, the distance they have often to walk is an inconvenience.

At large terminal stations where the staff is numerous and the premises completely enclosed, it is comparatively easy to marshal and sort the passengers, but it is otherwise at small intermediate stations where the approaches are not always secured. All goes well until there is an unusual crowd, owing to races, excursions or the like, and then agile young men clamber over fences and get access by the line, at the two ends to the station, and an unmanageable crowd congregates upon the platform. It is no use to be surly with a crowd in occupation of the ground, and flushed with success at having evaded barriers. Good natured chaff may keep the crowd in good humour, and lead the boisterous persons to be somewhat amenable to reason and sense. One or two men posted on the line, at each end of an imperfectly fenced station, will sometimes keep the people back. The great danger with a surging crowd upon a platform is, that some of the people may be driven upon the rails and run over by the trains.

The management of crowds has not yet become a science, and for want of precautions catastrophes often occur; to wit, the Sunderland case where the poor children were suffocated. One grievous mistake is drawing a crowd of people together into a narrow space, like, as it were, the neck of a bottle, where they cannot expand and where they have to pass, one by one, through only one door or wicket. If agents would give the matter a moment's consideration and reduce the problem to a question of time, provision might be made beforehand that would prevent dangerous crowding. We have been informed by Mr. E. Wood, District Superintendent for the London and North Western Railway, at Chester, that during the Chester Races of 1884, he ascertained, as a fact, that one booking clerk could book, at mixed fares, eight hundred passengers per hour, or something over thirteen passengers per minute, and that two ticket collectors, standing at a gate, could collect tickets and pass one thousand passengers through the gate in seven minutes. This very forcibly illustrates how rapidly

the work may be done if delays arising from crushing are avoided, and an even continuous flow of passengers is arranged.

Having estimated the number of passengers to be carried, and the limit of time likely to be available to book and seat them or to unseat them and collect their tickets, the problem is reduced to adequately increasing the booking windows and booking clerks, the exit gates and ticket collectors. Passengers do not wish to stop at stations in crowds; they want to take their departure quickly on their journeys, and upon arrival to get to their homes quickly. Facilitate their movement in the direction in which they are going, by good arrangements, and they will then give little trouble. The difficulties arise generally from insufficient porters, booking clerks, ticket collectors, booking windows, and ingress and egress gates. Most railways, in addition to an "accident gang," also need, under a good chief, a special peregrinating staff of booking clerks, ticket collectors, portable booking huts, ticket cases, light deer-fencing hurdles, barriers, hoarding, &c. In the event of excursions, large pic-nic parties, cattle shows or the like, the special staff should attend at a station and organise arrangements for the additional business. Too much is sometimes thrown upon and expected from a road side station agent at a small station with, perhaps, only a staff consisting of a boy clerk and half-a-dozen porters.

If a station becomes so crowded as to occasion fear of an accident, the best plan is to send a man to stop the expected train inside the distance signal, and then tell the passengers the train will not be brought up to the station until they do that which is the proper, safe, and necessary thing to be done under the circumstances.

Where additional and separate entrances can be arranged at a station during excursion times, the first and second class passengers can be brought in at one entrance, and the third class passengers at another, and separately booked at special booking boxes. If separate platforms are available and the numbers warrant it, the third class passengers may be sent away by separate trains, and the rough minority, found usually among the third class passengers, kept together and prevented annoying first and second class passengers, who willingly pay more money to avoid the crush of a crowd.

The only way by which crowds can be managed so that individuals may not injure one another, is by breaking up the crowd into sections by barriers. This reduces the surging to a minimum, and prevents "rushes." No barrier, however, should be so small as to form a *cul de sac*, or the pressure from behind will then do more mischief than if no barriers had been used and the crowd left to itself. The barriers must, however, be scientifically arranged, having in view the direction the crowd will take and where the greatest pressure is likely to occur. We have often thought that it would be a very simple matter to sink a few openings in a station platform, and ordinarily cover them with an iron cap, as is done with water cocks for fire purposes. With spare barriers on hand to fit, the porters, in half-an-hour before a crowd was expected, could lift up the caps and drop the barriers into the holes, so that as the persons arrived they would assemble in sections, and there would be no uncontrollable crowd.

A similar arrangement may be carried out by the aid of railings. We approve, for medium and small sized stations, of the plan of running a strong permanent railing some six or eight feet high longitudinally down the middle of a passenger platform with several *sliding gates* here and there at different points; then one gate can be used for the departure passengers to pass, after coming out of the booking office, and where their tickets can be checked, while another gate, at a suitable distance away, can be used for arrival passengers to pass, whose tickets have to be collected. The centre railing, when the platform is full of passengers on both sides of it, breaks up the crowd and diminishes the forward surging pressure, upon those persons at the edge of the platform nearest the railway line.

If further barriers are found necessary at some stations for special occasions, fix two or three swing gates hinged to lie ordinarily parallel with the centre railing. When crowds are expected, turn these swing gates to project at right angles from the centre railing towards the railway side, and so bolt them across the platform. They might extend to within two or three yards of the railway edge of the platform. This arrangement would effectually stop the rushing of the crowd up and down the platform.

Checking tickets at passing doors or gates when there is an uncontrollable crowd of persons at a station is extremely difficult, all that can be done is to get the passengers seated in carriages as quickly as possible and the train despatched, and then stop the train, if necessary, at the nearest quiet roadside station and check the tickets there, going through the compartments of each carriage for the purpose. Another plan is to check them in the carriages at the next ticket platform.

HAND TRUCKING LUGGAGE FROM CABS TO LABELLING PLACE.

—Under ordinary circumstances intending passengers present themselves with their luggage at a station either on foot or in vehicles. When persons arrive on foot carrying their own luggage, the difficulty is lessened as to fixing the place or thing done which legally completes the acceptance of the contract to carry the person and his luggage. In a general way a person does not become a passenger until he has been given and accepts a ticket and the booking clerk has accepted the money for the fare. The difficulty with respect to the luggage is in determining the point where the company's liability for the passenger's luggage commences. A passenger arrives in a cab at the street entrance with, say, four heavy packages of luggage. The company's uniformed porter takes the luggage from the cabman, places it upon a hand truck, and wheels it to the labelling place. The passenger usually parts company with his luggage at the entrance door to go to the booking office to obtain his ticket, because he cannot pass on to the departure platform without showing a ticket, nor can his luggage be labelled until he shows a ticket to the labelling porter. In some few cases, at particular stations, the porter wheeling the luggage on the hand truck follows the intending passenger to the ticket window, but the space and convenience at many stations does not always admit of this being done.

If a package is lost or stolen between the cab and the labelling place, a contest arises as to who is responsible. The company may deny (1), that the missing package was taken from the cab; (2), that their liability did not commence until the packages were labelled; (3), that their liability for the luggage could not begin before the passenger was booked. All these points give rise to an array of circumstantial evidences as to what happened within the space of a few minutes. (See Legal Points.) When it can be shown that packages of luggage were actually labelled, it then fixes the company's responsibility from that moment, and the rule that a passenger's luggage is not labelled until he produces his ticket, clinches the liability, because he has then taken his ticket and paid for it. It is an evil, that at any station luggage in its passage from the cab to the place of labelling should be accessible to any persons other than the company's servants. It would be a convenient plan to have at many station entrances one or two small hydraulic lifts, and as soon as the luggage is taken off the cab and placed upon the hand truck, lower the hand truck, luggage, and porter to the basement, and thence by an underground passage let the luggage be wheeled on to the departure platform to a labelling place. This labelling place ought to be on the departure platform where none but actual passengers should have access. This would take nearly all the luggage trucking-off the platforms, give more space, and passengers would not have the same anxiety as now in keeping their luggage in view, because they would know that only the company's servants had access to it. Where three or four passengers' luggage is upon one hand truck, it leaves it open for a passenger, who may be a rogue, to profess to identify, say a portmanteau, and have it labelled with his own luggage, when really it does not belong to him—but this is open to be done under any of the present plans. The porter who takes the luggage from the cab should carry the transaction through as at present until the luggage is labelled, and he should know what packages belong to each of the two or three passengers upon whom he is attending. The French plan at some of the large Paris stations is far more certain. There the booking office and the luggage receiving room are close together and near to the street entrance door. The railway porters will not remove the luggage from the cab until the traveller has first taken his ticket; the luggage is then put into an enclosed luggage room and strictly weighed, and the passenger is required to pay for any excess weight. The passenger is then ushered to the waiting rooms on the departure platform, and does not see his luggage again until he arrives at his destination.

One or more porters should be posted to attend at the street entrance door of the station to receive passengers and their luggage. At medium sized stations they should attend half-an-hour before the train is due to start, while at large stations, where trains are constantly departing, some porters, as front door men, are required to be constantly on duty at the street entrance. In some cases it is a good plan to have an electric bell from the street entrance to ring either in the porters' room or some central place. The policeman, or a regular porter at the street entrance, can then ring for additional porters to assist as may be required according to the number of passengers arriving. The evil

of too many porters loitering about a station doorway is quite as objectionable as when there is an insufficient number to meet the demands of passengers.

A policeman is at many stations necessary at the street entrance, particularly when there are many cabs arriving with passengers and luggage and the station yard is a limited area. He can regulate the movements of the cabs, keep order among the cabmen and check their abuse to passengers who refuse to pay more than the legal fare. He can make the cabmen, after discharging their loads, move their conveyances away and out of the station yard to allow other loaded cabs to pull up to the pavement in front of the station. He should afford passengers information as to cab fares, and be able to answer questions as to the time of the departure of trains, and keep a sharp look-out for pickpockets. The street entrance policeman should be a well selected man, authoritative in character and determined with cabmen and idlers, and yet civil to passengers. He should possess a good memory as to cab fares and the departure time of trains. A thoroughly suitable and efficient policeman is of great service to passengers, and particularly ladies. In some cases it is well to put the porters when employed at the station entrance under the policeman's control, and make him act as foreman, responsible for their conduct and duty.

In marshalling passengers from the booking office to their seats, or to the departure platform to wait for their train, the great object is to avoid checks or blocks that interfere with the even flow in the movement of the passengers from one place to the other. When the time has arrived that passengers may be expected to reach the station for a particular train everything should be in readiness to receive them, there should be no hurry scurry, and each railway official should be at his post. There should be every facility for the passengers to do the acts required of them, such as paying their fares, producing their tickets, getting their luggage labelled, &c.; and having done all this they should be free to pass along to their seats without being held in check or impeded. The public, as a rule, are usually willing to comply with reasonable regulations and precautions, but they object to suffer personal inconvenience or to be annoyed from imperfect arrangements. When passengers do the acts required of them the station agent must be equally ready to perform his part on the moment.

Where there are several platforms and several different trains leaving a station about the same time, great care is necessary to prevent passengers getting into wrong trains. Here the checking of the tickets in carriages, comes in useful. One or two policemen, able and willing to answer questions, posted at suitable places between the booking office and the departure platforms, are of great assistance in marshalling passengers on to the right platforms and into their right trains. Men of a talkative turn of character are the most efficient, and Irishmen fill this kind of post well. We have often seen at large English stations, porters who seem perfectly weary and worn out with answering questions, their laconic answers plainly indicating that they were sick of being pestered with inquiries. These kind of men are out of

place on a passenger platform, and should be sent to a goods shed to load goods. It is a serious inconvenience to passengers to be taken by express or other trains to distant places they have no intention of visiting. We remember hearing of a case where a poor old gentleman had made three trips from Willesden Junction, getting into the wrong train each time, and when he was brought back the third time he was almost heart broken. At junction stations like Willesden and Clapham, there should be no stint of policemen or boy guides to marshal passengers.

At stations and junctions where passengers stop for refreshments, one policeman, with a clear voice and good utterance, should be made specially responsible to warn passengers in the refreshment rooms, *when the time is nearly up for the train to start.*

Where passengers have to be marshalled across the railway lines in the absence of a bridge over or a passage underground, great care is necessary. We prefer a sub-way with steps going down, near to the booking window, because, if passengers once pass on to a platform there is a great temptation for them to cross over the lines to reach the opposite platform, rather than go up a flight of steps to cross over by a bridge. It is better not to let passengers pass out of the booking office or waiting room on to any platform, if it is not the particular departure platform for their train. Do not give them the opportunity of imagining how easy it is to step across. If, as we believe, the sub-way passage is the safer, though it should cost more money to make, still it may be cheaper in the end. Killing passengers is expensive, looking at it from only a financial point of view. Although there may be a cross-over bridge which the passenger did not use and was killed, juries will still say that, seeing there was a bridge, the deceased *should not have been allowed to cross the line.* Well then, do not let passengers have the chance of crossing, but make them go direct from the booking window down and along a sub-way to the required platform. If, from engineering difficulties, a bridge must be made, let the access to it, in like manner, be from the booking office, and still keep the passenger from access to a platform from which his train does not start. But yet it is also necessary, at many stations, to have an access to the sub-way from each platform, or passengers arriving by one train and desiring to go on by another from a different platform would be inconvenienced.

Where level crossings are arranged at small country stations at the extreme end of the platforms, the public must take their chance. With a station agent booking passengers and a boy porter looking after luggage, the passengers have to marshal themselves and must be left to trust to providence and their mother wit.

CHECKING TICKETS AND SEATING PASSENGERS.—The two best points at which passengers' tickets can be checked are (1), at a door, barrier or wicket as the passengers pass on to the departure platform; (2), in the carriages after the passengers are seated, or as they are about to enter. At some stations tickets are checked at both points, while at other stations only at one point, for much depends upon the laying out of the station accommodation in respect to the checking

facilities afforded. The ejection of a passenger, either drunk or sober, may become a very serious matter, and hence, when convenient, it is most desirable not to allow persons into carriages unless they first produce tickets. Under "claims and legal points" will be found the legal features of such cases. In the event of a passenger having taken his seat and refusing to show his ticket, or pay his fare, or alight from the carriage, the best plan is to make some show of removing the carriage from the train. If this does not lead him to alight it may be really necessary to detach the carriage from the train and place it on a siding, if too many passengers, owing to the delay, would not be inconvenienced by this course. Should this be done, a couple of smart porters should be on the alert to prevent the turbulent person entering another carriage. If what may amount to a legal assault is inevitable, it is safer for the company that it should occur in stopping the person *entering a carriage without producing a ticket*, than in ejecting him from a carriage after he has entered it. If the carriage from press of time or otherwise cannot be detached, the guard of the train must be warned, so that he may be able to identify the person and watch at which station he alights. The guard should then inform a responsible officer at the arrival station or ticket platform, and point out the person, and leave the officials at the arrival station to deal with the case. (See under Platform Arrival.) It is most important that the railway people at each station and the guard should remember the man's face and attire, so that in the event of subsequent proceedings, his identification may be beyond question. (Ejecting passengers drunk, see Legal Points.)

When tickets are checked in the carriages the doors must be locked immediately afterwards, but gentlemen passengers often resist this when there is five minutes to spare, because it stops them meandering up and down the platform and making a survey of the bookstall. Passengers must now and then be humoured a little when not of suspicious appearance, and when there is no fear of confusion. It is incumbent upon the ticket checker at one or other point to nip the tickets, and while cutting out a piece of the ticket with the new form of nippers, he, by the same operation, impresses the number of the station upon the ticket. If, therefore, the ticket is not checked and nipped, the omission will be discovered at the audit office when the used ticket is examined there, and many such cases occurring at one particular station proves the checking of the tickets is badly done there. The examination of tickets after the passengers are seated is the only plan by which passengers can be discovered riding in a higher class carriage than indicated on their tickets. This is very extensively done in some districts by regular travellers on short journeys, and there is no means of stopping it without the aid of travelling ticket examiners to intercept trains and check the tickets at unexpected places.

Passengers often profess they have entered a class carriage different to their ticket by mistake, and no doubt, in some cases, this is true, but not in all cases. Mr. Kingston Neale, manager of the West London Extension Railways advocates the plan of painting each class of carriage the same colour as that on the ticket, varying the colour for each class. This, we are told, was once tried upon the

London and North Western Railway but not continued. The plan merits serious consideration, the gain to the travelling public being of more importance than the uniformity produced in the appearance of a train of carriages all of one colour. Three colours that harmonize with each other might be selected.

There is a great tendency on the part of passengers when taking their seats in a train to spread themselves all over the train and thinly occupy all the carriages. Each party of two or three passengers desires a compartment to themselves. This unfortunate insular prejudice seems to be confined to the people of the United Kingdom, who will not make acquaintanceship with one another without a formal introduction. This is an idiosyncrasy that costs railway companies many thousands of pounds a year that might be saved by reducing the number of carriages on trains and getting better paying train loads. The number of carriages now on a train has to be greater than is often really necessary, and there is consequently more friction upon the rails and wheels from additional wheels passing over the line. The true remedy is to adopt for second and third class passengers the long saloon carriages similar to those used in America, holding sixty to eighty persons, and leave the first class passengers to their coveted seclusion, for which they should pay well. If the saloon form of carriages were used for all classes, murders and indecent assaults would entirely cease, and this would be no small gain to the public. Time would be also saved in ticket checking, as much of the ticket checking could then be done in the carriages while the train would be in motion.

With suitable traversers at particular stations, one or two carriages may be quickly picked out from or added to a train, and the time incidental to shunting carriages reduced. It is, however, the time occupied in taking carriages on and off a train, and adjusting continuous brake appliances and the alarm cord, that forms the objection to altering the number of carriages on trains at intermediate stations.

An agent at a terminal or starting station should, as far as possible, seat the passengers in the smallest number of carriages that, without undue crowding, will comfortably convey them. By watching over a time the number of customers that each train obtains along the line, and taking on or throwing off carriages at junctions, the number of carriages on trains may be economised and expense saved. When passengers insist upon entering a particular carriage, if necessary, it is easy to tell them that the carriage is likely to be shunted off at an intermediate station, which would subject them to the inconvenience of changing. When there is a rush of passengers commence to seat them from the rear of the train forward, and only unlock the foremost empty compartments as the opened compartments become well filled. The guards from time to time should report (1), whether carriages are too few or too many to accommodate the passengers along the line; (2), whether the times for the starting and the returning of the train suit passengers; (3), whether the carriages have been properly lighted during the journey. The end carriages should be filled up first, because if any are shunted off at intermediate stations, those nearest the engine are the easiest to detach.

In seating passengers much has been done by the aid of "through" carriages distinctly labelled, to relieve passengers from the inconvenience of changing at junctions. The "through" carriages, however, increase expenses by leading to additional rolling stock, dead weight of trains, and non-paying train loads, but the plan saves much confusion, and often time. It might render a less number of "through" carriages necessary, and benefit passengers for whom there are now no "through" carriages, if a suitable number of carriages were specially used for "junction" passengers. Seat together all passengers that have to change at junctions, and particularly small junctions. The station staff at junctions could then deal with passengers better when seated in a limited number of carriages than now, when spread all over a train, and less junction passengers would be "over" or "under" carried. Passengers, and particularly ladies, knowing they were in a "junction" carriage, would be less anxious and more comfortable in their minds, knowing that they would be specially looked after and taken out at the proper changing stations.

Every care should be taken when there are "through" carriages on a train labelled for particular stations, that all the passengers for those stations are seated in these carriages. It is absurd for local intermediate passengers to be allowed to occupy "through" carriages to the exclusion of "through" passengers. On the other hand it is equally objectionable to put extra carriages on a train for intermediate passengers, when there are "through" carriages about to run half empty.

Passengers should not be allowed to ride in either passenger or goods guards' brakes, luggage vans, or parcel vans, unless with authorised passes. We once, in Central India, allowed a colonel and his lady, under very urgent circumstances, to ride *at their own risk* in a goods guards' brake. The cotton on the train took fire, the colonel's horses were burnt to death, and the colonel, his wife and the guard, narrowly escaped a like fate.

Ladies travelling alone in any class, more particularly in the third class, should be seated in a ladies' compartment, as it is safer for them, and, in some exceptional cases, safer also for gentlemen passengers. In India, certainly in Western India, all the native females travel together, and even when they are going on a journey with their husbands or fathers the two sexes are separated and travel in separate carriages. Ladies' compartments should be distinctly labelled, and gentlemen prevented inadvertently trespassing therein.

Smoking compartments should also be distinctly labelled, and all smoking stopped in other compartments; and females, when alone, should not accidentally find their way into a smoking compartment and be allowed to remain there.

Prisoners, or insane persons, under the charge of a guard, should be put into separate compartments and the doors locked, according as the guard in charge of the persons may desire.

STARTING TRAINS.—A station agent or his deputy, must inspect a train immediately after it is formed and alongside the platform to see that all the small details necessary to be done in the forming of the

train have been faithfully executed. This inspection should be done if possible before the passengers commence to arrive, or as early before as possible, and not left to the last few minutes when the departure time is nearly up, and when passengers are taking their seats. If defects are only then discovered there may be insufficient time to properly rectify them.

The formation and making up of trains for departure at a terminal station rests with the station agent. He, by the aid of his staff, is responsible to get the work performed, and to hand over each train to the guard in a workable condition, apart from mechanical imperfections. The guard is responsible to inspect his train and see that he receives it in workable condition. The formation of the train is described under "yard work." The whistle to the engine driver by day, and the whistle and green or white signal light elevated above the head and waved by night, are the authorised signals to start the train, and must be given only by the guard. This act in giving the signal to start may be taken as the act by which the guard assumes charge of the train, and the point at which his responsibility commences. When, however, more than one guard travels with a train, the front guard blows the whistle after receiving a signal from the rear or head guard to do so. This practice, however, is not universal, as on some lines the plan is reversed. But although a guard gives the signal to start the train at both terminal and intermediate stations, he may only do so when the station agent or other officer in charge gives him the word or signal, and even then the guard must not accept the word or signal unless the time fixed in the time table for the departure is "up." Before a station agent can with safety give the guard the starting signal there are certain things to be done and to be seen to in respect to the train as follows:—

1. That the driver, fireman and guard are sober and fit for duty. The Board of Trade recommend that engines should not be run tender first.
2. That the brake power on the train and the guard power, are sufficient according to the company's rules.

On lines that are level or where there are only slight gradients, one guard and one van is deemed sufficient for nine carriages containing passengers, or with horse boxes, thirteen vehicles.

3. When more than one guard travels with a train, that the head guard has arranged to ride in the rear brake van, *next to the last passenger carriage*, and that the assistant guard has arranged to ride in the front van.

When several vehicles, as fish vans, carriage trucks, horse boxes or the like, but of a limited number, are put on to a train behind the rear van, sometimes an additional guard's van is added to protect them. If these last vehicles should accidentally become detached and the guard is riding in the last van, the passengers might then be left without any guard, and hence it is safer for the rear guard to ride in the rear van *next to the last passenger carriage*.

4. It must be ascertained that the departure time is "up" by the station clock.

The Board of Trade recommend that clocks should be provided at each station, and visible from the platform. It is thus of the greatest importance that the correct time should be kept by the station clock, otherwise passengers may arrive at the station actually within the starting time, and find the train gone.

5. That the booking of passengers has ceased and the ticket window closed, and that the last booked passenger has reached the train and taken his or her seat. This information may be passed by a policeman, messenger, or mechanical signal, such as a bell or gong.
6. That the doors or gate leading on to the departure platform, or at intermediate stations, the street entrance door should be closed when the starting time is up, to prevent passengers behind time and without tickets rushing on to the platform and attempting to get into carriages in motion.
7. That all persons going by the train are seated, and all luggage and parcels loaded and none overlooked on the platform.
8. That all the carriage doors are actually closed, and the handles turned horizontally.
9. That the signals are "all clear."
10. That at all times and especially after sunset or in foggy weather, the proper boards and lights are attached to the engine according to the company's regulations. That red tail and side lamps are also attached to the rear guard's van or the last vehicle on the train, as laid down in the company's regulations, but the last vehicle must in every case carry a red tail lamp. That red or other distinguishing tail and side lamps are upon "slip carriages," and a white light upon the front vehicle of same.
11. That the regulation interval of time has passed since the departure of a previous train, except where the block signals are in force.
12. That the proper regulation interval of time is *allowed* before an express or other quick following train is due to pass the station on the same line and in the same direction as a previous train, except where the block signals are in force.
13. That the policeman or appointed porter rings the station hand bell upon receiving verbal orders or a hand signal from the station agent or officer in charge to do so, as a notice to the engine driver, signalman, porters, friends of passengers, and others that the train is about to start.

The use of the station hand bell seems to be declining, and at many stations no notice is given beyond the guard's whistle. It should be the business of two or three active porters to be on the alert at the front, centre and end of the train, to keep persons clear as the train begins to move, and, if necessary, to drag back any person attempting to enter a carriage when the train is in motion.

14. The last signal is given by the station agent or the officer in charge, by word or hand motion, to tell the guard the train may start, and then the guard will sound his whistle, and, at night, in addition, exhibit a green or white signal light of his hand lamp, and the driver will then start his engine.

All the matters herebefore detailed as being necessary to be done by the station people to make the train fit and safe to travel, should be inspected by the guard before he allows the train to pass into his charge, and particularly the following:—(1), sufficiency of carriages to meet the demands of passengers at intermediate stations: (2), tail

and side lamps attached; (3), alarm communication attached and in working order; (4), to see his watch is keeping correct time; (5), that the van brake is in efficient working order; (6), that the carriages are clean and fit for passengers, and that they are securely coupled and correctly labelled; (7), that trimmed roof lamps are put in carriages, or that the plugs are put in the lamp holes.

Guards should carry with them—(1), book of rules; (2), working time table; (3), twelve detonators; (4), watch set to correct time; (5), whistle; (6), hand signal lamp; (7), carriage key; (8), red, green, and white flags; (9), two hand scotches; (10), tail signal board, for train following; (11), guards' journal. Station agents at terminal stations, when it is within the scope of their control, should periodically and at uncertain times, overhaul the guards and see these requisites are either carried by the guards or are to be found in their boxes provided to hold same.

When porters have to be sent with trains as assistant guards they should be picked men, for every porter is not qualified to work a brake. At stations where porters are occasionally required to go out with trains, two or more porters should be nominated and sent out with an experienced guard and trained. When deemed competent they should receive a certificate as assistant acting guards, and then no porter should be sent with a train unless one holding a certificate, or, as it may be termed, a license. These certificates may be printed upon parchment so as to make them of some importance, and encourage the men to take a pride in possessing them.

In sending away trains of empty carriages the engine should not be overloaded, nor such a number of carriages sent away as to make a train unmanageable to run upon the gradients and round the curves that have to be passed.

GENERAL PLATFORM WORK.—All the platforms, passages, approaches and station entrance yard should be swept once a day, or as frequently as may be necessary. During the night or early in the morning, when there are no passengers about, are convenient times for sweeping. At some large stations the outside badge porters are required to do some of this work as an exchange for the special privilege of having access to the station to carry luggage for passengers who do not hire cabs. Night porters having light work may have the duty fixed upon them of sweeping the station. Windows in like manner require to be cleaned at fixed times, and the porters responsible for the work should have a good supply of cloths and whitening for the purpose. The painted surfaces about a station also require to be periodically scoured either by porters or painters. Dirty dusty platforms spoil passengers' clothes, dirty windows and dirty paint offend the eye, and give a station and those who manage it a bad name. Where there is a hand fire engine or convenient water pipes for attaching India-rubber hose, the platforms, windows, &c., can be easily washed. It is well to have two or three navy pensioners as porters, who, having been accustomed to wash ships' decks, take cheerily to such kind of work.

The inside cleaning or some portion of it is in most cases deputed to women, perhaps porters' wives or widows who clean waiting rooms, offices, &c., but a supervision should be kept upon them to insure that the work is properly done (1), floors or oilcloth washed; (2), tables, chairs, looking glasses dusted in the corners of the wood work as well as other parts; (3), *grates cleaned and black leaded*; (4), lamp globes washed; (5), mats shaken; (6), walls and cornices brushed down. Worn out and shabby furniture in waiting rooms should be renewed. When waiting room carpets wear into holes, passengers running in a hurry to catch a train may catch their foot in a hole and fall.

Water closets and urinals require special attention and cleaning, and the water supply plentiful and in frequent use, together with plenty of disinfectants.

Porters' rooms and lamp rooms should be washed out daily or weekly, as necessary. Lamp rooms may be kept tolerably clean when the flooring is tiled or of concrete. If the men find the tiles too cold for their feet, small wooden gratings, like those used on board steamships, might be supplied for them to stand upon when at work lamp cleaning.

Each separate piece of cleaning work should be fixed upon some individual man or men, and a tabular form made out like a guard's roster. An agent or his deputy should certainly once a week, if not oftener, go round with the list in his hand and with his mind bent on the matter, and see that each piece of work has been done well and with a proper finish. A sixpenny "reduction of pay ticket" issued now and then against men doing slovenly work has a wonderful effect. The object of such punishment is not so much to give a man a pain in his pocket, but rather to stir up his pride, for it is absolutely necessary, with some exceptional men, to spur them up in such a manner to make them do their work creditably.

A station should have a clean, bright, cheerful appearance, and as far as it may rest with the agent, he should contribute all he can to produce this. Shrubs in boxes help very much to decorate a station, and where a railway company has waste land a working nursery gardener could, at a very small outlay, produce for the purpose plenty of shrubs at a small yearly cost. At terminal stations fountains would prove an adornment, and in summer contribute to cool the atmosphere.

Old, discoloured, dilapidated advertisement frames and placards should be removed by the contractor, who, when necessary, should be called upon to remove them.

There should be convenient and suitable racks about a platform for all kinds of boards as (1), boards with the names of stations that are used to put on through carriages; (2), "engaged" boards for reserved carriages; (3), train tail boards, as notices of following trains, and others of like kind.

Time table boards and other boards used for printed notices are frequently left in a neglected state. Several time tables and notices are pasted one over another until the boards become very untidy. For once or twice the bills may be thus pasted one over another, but periodically the old bills and notices should be thoroughly cleaned off the boards by the aid of hot water after which, new clean bills should

be affixed. An ink line should be ruled right across the time table under the departure and arrival times of the trains to facilitate passengers at each particular station making references.

A list of passenger fares from each particular station to all other stations to which passengers are booked is required by Act of Parliament to be exhibited where passengers can easily see it. (See Extracts from Acts of Parliament.) The Carriers Act, bye-laws, and other Acts must also be exhibited at passenger stations the same as at goods stations. (See under Goods.)

PASSENGER YARD WORK.

Forming trains—surplus carriages—market and fair days—ranging separate class carriages—number of vehicles to form a train—dummy vehicle next engine—supply of spare carriages—coupling carriages—locking carriage doors—alarm cord—vacuum brake—foot warmers—roof lamps—shunting over main lines—loop lines at stations—station sidings independent of main lines—kinds of shunting operations—precedence of trains one over another—trains off time, shunting—protection by home signal—slow trains and fast trains with and without block signals—clear road for through trains—dividing heavy trains—signalman and shunter disagreeing on shunting operations—stopping trains shunting off or taking on vehicles—station shunting, proper—vehicles detached from behind rear van—attaching and detaching carriages—leaving vehicles on sidings—using chain and padlock—to stand clear of main line—shunting arrival trains—pushing carriages forward from rear—signals between shunters and drivers—siding for crippled vehicles—cleaning buffer rods and couplings—frosty weather and water cranes—fixed scotches—catch sidings—facing points—closing empty carriage windows, &c.—sprags and hand scotches—points, cleaning—outlying siding points to be locked—wheel tapping—greasing and oiling axle boxes—facing points, holding levers—sanding rails in foggy and wet weather—shunting time for engines at terminal stations—light engines returning—lighting and putting out signal lamps—foggy weather and snow—storm precautions.

FORMING TRAINS.—Forming passenger carriages into trains is a very different thing to forming goods waggons into trains. In the latter case each wagon may have to be left off at a different station, and consequently the waggons must be sorted on a goods train into station order to facilitate the process of detaching them at stations. With passenger trains the detaching or taking on of carriages or horse boxes immediately is exceptional, as a train in a general way goes “down” from one end of a railway line to another, and then the engine and guard’s van are reversed and the same carriages run back as an “up” train. Trains are often at night put away on a siding, and in the morning, on the guard’s van being shunted to what is to be the end, the train stands formed, and is put back into the platform siding to receive passengers; thus in a measure the trains are always made up, but yet there are additions and subtractions of carriages sometimes daily or even hourly. Sometimes it happens there is no inward train of carriages available, and a train has to be formed out of surplus stock on hand. There should always be a contingent of spare carriages at terminal stations, junctions, and particular intermediate stations. These form overplus carriages above what may be wanted for the ordinary day’s work, and this overplus contingent is drawn from and added to according to the number of passengers travelling each day. The art is to find out, by watching the averages, how many carriages of the different classes each passenger train requires each day of the week. Market days, fairs, exhibitions, hunts, and the like, occurring on particular days of the week, affect the traffic and

render extra carriages necessary for certain trains. The guards who regularly conduct particular trains should be required to make constant reports of how the carriages fill between intermediate stations. There should be an order book at terminal and principal stations in which directions should be given to the head porter or shunter as to the number of different class carriages to put together to constitute each train, *under normal conditions*. Then slip orders should be issued from day to day, and, as far as practicable, a day beforehand, as to putting on additional carriages in the case of markets, fairs, &c. Sometimes permanent orders may be given to put on certain additional carriages on a particular train on one or two days a week.

It is the business of the head porter or shunter to put the trains properly formed and equipped into the platform sidings, and the agent or platform inspector should see that the carriages and train are all right and fit to perform the journey. The head porter, with his men, should make the train fit and proper to travel.

There seems to be no generally accepted formula as to how the different class carriages should be ranged together on a train. We prefer the Metropolitan Railway Company's plan of putting first class carriages in the centre of the train, and second and third class carriages at the two ends. Thus on the "down" journey the third class carriages will be next the engine, and on the "up" journey the second class carriages will be transposed next to the engine, or the order may be *vice versa*. The centre of a train, in most cases of accident, is the safest part, and as compensation for injury or death by an accident is based upon the average yearly income; and as first class passengers are usually persons of larger incomes than second or third class passengers, they, or their relatives, can recover the largest amounts of compensation. For this reason, and because first class passengers pay the highest fares, it is expedient to give them the preference in respect to safety. This, however, cannot in all cases be fully carried out because a through train is often made up of sections, and these sections are detached at junctions and sent on by engines along branch lines; still, however, the first class carriages can be kept in the centre of each section, and between the second and third class carriages. A difficulty also arises with composite carriages, but here again the first class compartments should be constructed in the centre.

Upon some lines, and particularly upon the London District Railways, carriages are permanently coupled together in formed trains, or what is termed "shuttle cock" trains, from being worked to and fro intact, while in some other cases carriages are permanently coupled together in pairs. In such instances the putting together of single carriages to form trains is reduced to a minimum.

The maximum number of vehicles and brake vans to form a train, varies according to the gradients on each particular main line and branch line.

A safe maximum workable load for a train, *under all conditions*, is considered to be twenty vehicles.

When no patent brake is used, and on lines where the gradients are slight, one guard and brake van is considered sufficient brake power

for nine passenger carriages, or, with horse boxes, thirteen vehicles. This number is gradually reduced to five loaded vehicles, according as the gradients to be passed over become heavier. The gradients on branch lines are usually the heaviest. Where a patent brake is in use, three, or perhaps four, additional vehicles can be added to the number considered to be safe when only a hand brake is used.

When the passengers desiring to be conveyed by one particular train fill over twenty carriages it is usual to divide the load and send two trains, the second or relief train being run as a special. If the lighter of the two trains is despatched first it keeps well ahead of the heavier train following, but if the reverse plan is adopted the heavier train may delay the lighter one.

Where two brake vans are put upon a train one should be in front and one behind, and if a third has to be used it should be in the centre of the train. It is useless putting brake vans upon a train (except when they are being returned as spare stock) unless assistant guards, or porters acting as guards, are sent in the vans to work the brake power.

The time that trains ought to be ready alongside the departure platforms before the starting time depends very much upon the number of platforms available, and the intervals of time that trains have to be started one after the other at the particular platform. A passenger guard by most companies' rules is required to be on duty half-an-hour before his train is timed to start, that he may have proper time to examine it. Of course he may examine his train on a siding in the yard, but half-an-hour is not too soon to have a train alongside a platform ready to receive passengers. Unfortunately this cannot be done at many busy terminal stations where trains are often started within ten minutes of each other. The advantage of having a train ready early is, that passengers coming to the station early get seated, or at least their seats are taken and their luggage packed, and this advances the work and reduces the throng on the platform during the last few minutes.

A horse box or other vehicle should, when practicable, be placed as a dummy or buffer between the engine tender and the first compartment to be occupied by passengers. When this cannot be arranged the next best thing is to use a third class brake carriage for the first vehicle next the engine and allow no passengers in the compartment next the engine; if this is also impracticable, then the first two compartments in the carriage next the engine should be locked on both sides and no passengers allowed into them. Where accidents occur at the front of a train, the engine tender often telescopes into the vehicle next to it, and hence the desirability of a dummy carriage.

It is certainly the best plan, when it can be done, to keep carriages of each class together on a train, that is to say, all firsts together, seconds together, and so on, because it prevents passengers on a platform crossing into each others way, impeding each other and increasing the crush. When passengers know at which part of a train their class carriages are to be found, they move in sets towards the one direction, and do not rush about from one end of a platform to the other seeking a carriage of the class corresponding with their tickets. The London District

Railways hang boards in three different parts of the platforms to congregate the three classes of passengers in three separate groups, which correspond with the order in which the carriages are ranged upon the trains. This appears to answer, and it is unfortunate the plan is not always applicable to the conditions of the traffic of other lines.

An agent should keep a careful daily watch upon the number of spare carriages he has on hand, and if some of these are taken away in making additions to stopping trains, he should telegraph to the district officer to send spare carriages to replace them, unless when expected trains are likely to bring spare carriages. In some cases the carriages put on are brought back again by the same train when making the back journey.

When cleaned carriages fit for immediate use are ranged in proper line, the following matters should be attended to, before the train is made ready to travel:—

1. The carriages should be closely attached one to the other by screw couplings. These couplings should be in safe working order, clean and oiled, so that the screw may not be prevented turning easily from dust or dirt. The screw couplings should be selected to suit the buffer springs of the particular carriage, because some buffer springs are easy, and although the screw of the coupling may be turned to its fullest extent, still the carriages will not be closely coupled from the coupling being too short. If carriages with spring buffers are not closely coupled together, they rock, and from a want of compactness do not run as a train, but rather as a string of jolting vehicles. The side chains should, at the same time, be hooked together, but only loosely, to give play round curves on the line.

We have always held the opinion that all screw couplings and coupling links for goods waggons, and, in fact, all the appliances through all trains, fastening one vehicle to another, should be tested and stamped the same as is done with ship's cable chains, and that such testing should be regulated by an Act of Parliament.

In coupling carriages where there are two fixed couplings, some care is necessary to keep the spare coupling clear of the one that is put into use, or from a jam or unequal traction force the carriage draw bar hook may be broken off, and then if the side chains fail a portion of the train will become disconnected, and perhaps left behind on the main line.

Any ordinary porter should not be allowed to couple carriages; the "coupler" should be a man picked out specially for being nimble and having a taste for the work. There is a great danger that a slow, heavy moving man may be killed in "ducking" under and between the carriages to couple them.

Enginemmen are responsible on many lines for the coupling of their engines to the trains they are about to work, but the firemen are allowed to fasten the couplings. The same applies to uncoupling at the end of the journey or when shunting at intermediate stations.

2. The carriage doors, on what will become the off side at the intermediate stations, should all be locked, also the doors on the near side, if it be the practice to make passengers show their tickets

before taking their seats. Sometimes the near side at a starting or junction station becomes the off side at the intermediate stations, in which case, just before the train starts, the doors on the near side must be locked and those on the off side unlocked.

Persons, after dark, have been known to get out of a carriage on the off side at a ticket platform, and sit quietly on the footboard until the collection of tickets was over, and then, as the train started, to stealthily get back into their carriage and thus evade payment of the fare.

3. With express trains a connection must be made from the gong or whistle on the engine to the guard's van, by a cord carried along the carriages and accessible to passengers on the "off" or "six-foot" side. The cord is usually carried under the eaves of the carriages and just above the top of the windows.

The providing of a communication upon all trains *that travel twenty miles without stopping* is required by Act of Parliament (see sections of acts), and the fixing of the cord should be a duty resting with one particularly careful man, he having such assistance as may be necessary. The cord when fixed should be tried, and *test signals* exchanged mutually between guard and driver before the train starts. This testing should also be done at junction stations, when a train is handed over to another company. The traffic department is only responsible to carry the cord to the engine tender, and the driver is responsible to carry it over his tender and attach it to his gong or whistle. The Great Northern Railway Company attach the cord to the lever of the vacuum brake, and thus, when it is pulled either by the guard or a passenger, the brake is applied and the train stopped, apart from any action on the part of the driver.

4. The attaching and screwing up of the connections of the vacuum brake or other continuous brake between one carriage and another.

This should also be deputed to a careful man who possibly, at the same time, may attach the screw couplings, and be responsible for both duties.

5. The supply of foot warmers.

These are usually not put into the carriages until a train is alongside the platform, but they should be ready in good time. They are usually boiled in a cistern and the water not often changed.

6. The axle boxes of the carriages should be properly oiled or greased, and the head porter should satisfy himself that the greaser has gone over the axle boxes of each carriage. (See "Greasing" under Goods.)

7. When it is known that a special or a relief train will follow a regular train, signals must be used to make this known to intermediate station agents and signalmen and gatemen at level crossings. The recognised signal is attached to the end of the rear guard's van or other last vehicle at the end of a train. By day a red tail board or red flag tied on is used and by night an extra red (sometimes a green) tail lamp. The head porter must see these signals are attached when their use is necessary

8. If an invalid carriage has to be attached to a train it should be put in the centre of the train when practicable.
9. The fixing of a red tail lamp and two red side lamps to the guard's rear van or other last vehicle of every passenger train is of vital importance, when a train starts either at night, or will not complete its journey before night comes on. All companies attach to the day trains a red tail lamp, sometimes lighted, sometimes unlighted, according to the tunnels or particular requirements of each line, but always lighted in foggy weather, to give station agents, signalmen, gatemen and others an opportunity at all times of knowing when a passing train has left behind any carriages that may have broken away.

In the case of long journeys there is often a provision made to attach the tail and side lamps at an intermediate station, in which case the station agent and his men at such station are equally responsible as if the train had originally started from their station.

Where trains are in sections that are detached at certain junctions to go along branch lines, it is sometimes the practice for each section to be provided with the necessary tail and side lamps at the starting station, but the lamps are not necessarily lighted until the arrival at the junctions. Some superintendents object to this plan where the block system is in use, for fear a section of the train may become accidentally detached between two stations and cause the signalman to suppose the whole train had passed. Where trains pass on to the lines of foreign companies who attach their own tail and side lamps the plan would be of no service. The lampman, head porter, platform inspector and guard are all responsible to see that each train is supplied with tail and side lamps such as may be required by the rules, and all these men should be punished if a train is allowed to slip away without lamps.

10. All carriages on a train must be provided with well trimmed roof lamps.

The same remarks apply in this case as in the case of tail lamps, as to which station, either the terminal or intermediate station, should supply them. It is often a matter of convenience, but the responsibility should be clearly fixed on one station or the other. Locomotive men who compete for premiums for economy in stores have been known to abstract oil from roof or other traffic lamps in order to save their own stock. This kind of thing should be checked.

There should be several depôts for sand about a yard and station, that sand may be freely used upon the rails when the rain or atmosphere causes the rails to be slippery, so that the wheels of vehicles will not "bite."

SHUNTING OVER THE MAIN LINES.*—A very large proportion of the accidents of the past have occurred at intermediate stations from quick and slow trains coming into collision with other trains

* NOTE.—For the reasons stated in the preface, the management of signals has been omitted, except incidentally.

or vehicles standing or moving on the main lines, within the limits of station yards; hence when trains, odd carriages or waggons have to be shunted at intermediate stations on to or over the main lines, the greatest possible caution is necessary. The percentage of risk is always larger at a station where the goods sidings and sheds are ranged on both sides of the main lines, involving a frequent passage of waggons from one side to the other.

We have long advocated diverting the main lines running through busy stations where there is much shunting, to loop lines running round stations. The points would be set for the loop main lines, and these stations would be practically upon sidings, and fast passenger and goods trains not requiring to stop at such stations would run through over the loop main lines.

On the long single lines of Western India it used to be, and we suppose still is, the plan that at all the intermediate stations the passenger platforms are upon sidings, and are only accessible by the aid of a pointsman at the extreme end of each station holding the points to turn a train in. The main line runs through the centre of the stations, and the points at both ends always stand for the main line. The objection is the danger of facing points at the two ends of the proposed loop lines. This, however, is likely to be overcome, if the new form of points invented by Mr. R. Price Williams, the eminent consulting engineer, proves successful as a substitute for facing points.

Loop lines round stations would effect one of the greatest modern improvements applied to railways for reducing accidents and increasing the safety of express trains. As the necessity of shunting over, or on to main lines decreases, so in the same ratio will accidents at stations diminish. A station yard should be laid out so that all the station shunting work can be done within its own limits and quite independently of the use of the main lines; but as this condition of things does not prevail at all stations it becomes necessary, as it were, to legislate for evil, by bringing in the use of signals to protect carriages and waggons in positions where, if avoidable, it would be better not to place them.

There are three kinds of shunting operations that take place at intermediate stations.

- (1.) Slow trains and late trains that have to be shunted for quick trains to pass and take the "right of road."
- (2.) The shunting of carriages and goods waggons "on" and "off" stopping trains.
- (3.) The shunting of carriages and waggons, incidental to the yard work of the station, by engine, horse, or hand power.

The following, in a general way, is the usual order of precedence given to different kinds of trains:—

- 1st. Limited mail trains.
- 2nd. Passenger express trains.
- 3rd. " ordinary "

All passenger trains take precedence of goods, mineral, and ballast trains.

- 4th. Express goods trains.
- 5th. Fast " "
- 6th. Special meat trains.
- 7th. " fish "
- 8th. " cattle "
- 9th. " empty passenger carriages.
- 10th. Ordinary stopping goods trains.
- 11th. " " mineral "
- 12th. Special empty waggon "
- 13th. Ballast trains.

The preference given to each train, according to its urgency, is usually defined in each company's working time table, and must be followed. Considerable judgment is necessary at times in discriminating the wisest thing to be done, because the state of the weather often makes the rails wet and slippery, besides which, the consideration as to the weight of the train is of importance. It is not alone the *sending on* of a train, but the question of how long the section of the line will be blocked by the passage of that particular train.

The fixed and regular shunting at a station of one particular train for another particular train does not occasion much anxiety. It is when the trains become irregular and "off" time, that difficulties may arise. Then the forecast comes into play, and to be able to forecast the best thing to do under certain given circumstances, involves a complete acquaintance with the "time" that is being kept by all the approaching up and down ordinary and special trains, say for fifty miles on either side of the station. Ordinary trains "off" time will necessitate the shunting of other ordinary trains at other than the customary stations, according as one train may overtake another train. Special trains running quickly will, of necessity, give rise to additional shunting at stations of the slow ordinary trains which are overtaken by the special trains. The telegraphic advices of the times that approaching trains leave the different stations on their journeys have to be carefully considered, and often demand one man's entire and undivided attention. It is useful to post these advices upon a board put in a prominent place, to aid the foreman in laying out the shunting work.

Where one train, say a goods train, has to be shunted at a station for another train to pass, the goods train should be shunted on to a siding, if there is any siding to hold it. If there is no suitable siding, or the suitable sidings are already occupied, there is then no alternative but to shunt the goods train on to the second main line.

When this has to be done the train should be shunted to stand well within the home "danger signal," so as to get the full protection of the home signal as well as the distant signal. If the train is not well within the home signal, the safety space between the home signal and the distant signal is proportionally lessened, as an approaching train, running inadvertently past the distant signal, has a less distance to pass over (or pull up in) before colliding with the shunted train. If a train is not well protected within the distant signal, owing to the peculiar line of country in respect to curves or

embankments, the guard should be sent out with his red flag, lamp or fog signals to warn approaching trains.

When the train is safely shunted, the red tail and side lights must be taken off or obscured, for the engineman of an approaching quick train often finds it difficult to judge from a distance, whether or not the lights are upon a train upon the same line of rails as his train is running. This applies to both shunting upon the second main line or upon a siding, if the red tail and side lights are visible to an approaching train. The shunted train also requires protection upon the main line upon which it is standing, and the engine head lights should therefore be turned on to red as against an advancing train. Supposing block signals are in force in addition to the fixed signals then increased protection is afforded, as the following quick train can be kept off the blocked section until the goods train is safely shunted, or if allowed on the section, only permissively.

Where there are no block signals, but only fixed signals, then an interval of time is introduced as an element of safety. That is to say, the train to be shunted must be shunted at least ten minutes clear, before the following quick train is due to arrive, and after the quick train has passed, the goods train must not follow it for five minutes afterwards, or, in foggy weather or snow-storms, fifteen minutes. Thus the guard of a slow train knowing he has a quick train behind him, for which he must shunt somewhere, should measure the time accordingly and stop at a station where he will have plenty of time to get his train shunted, a clear ten minutes, before the fast train is due.

The distant and the home signals are intended for the protection of trains or vehicles during the operation of shunting on or over the main lines within the station limits, but what is most to be desired is, that there should be no occasion to use this protection when quick passing trains are expected, so that they may not be stopped by signals but allowed to have a clear road to run through those stations at which they are not timed to stop.

Sometimes express passenger trains, when heavy, are divided into two portions, and the second portion or train is run as a "special," the first portion carrying a red tail board, red flag or extra tail lamp, to indicate "train following." Supposing a goods train has been shunting at a station to allow the express to pass, if the signal of "train following" has not been observed, a goods train may be in the course of entering upon the main line when the second portion of the express train may come into collision with it, in spite of the signals. If, however, the goods train has got on to the main line and gone forward an accident may even then occur, or confusion may arise, from the goods train running between the two portions of the express, and necessarily delaying the second portion.

A prolific cause of minor accidents at stations during shunting operations is, that the signalman and the shunter sometimes misunderstand each other. There is often too much hurry-scurry with the shunter who does not deliberately make the signalman realise what particular operation in shunting is about to be carried out. Thus the

signalman, under a misapprehension, omits to exhibit a danger signal or he exhibits a wrong signal, and the consequence is that an approaching train runs past the distant signal, to within the station limits, and an accident occurs. Where the interlocking of points with signals is the practice, failures of this kind are largely reduced, because access to or from sidings on and off the main lines cannot be obtained, unless the proper signal is exhibited by the same act which changes the points. Loose working between the signalman and shunter should be sharply dealt with, and if these two men quarrel about the work, they should be separated and sent to different stations.

The shunting of vehicles "on" or "off" stopping trains, into sidings, is not as risky an operation as shunting long heavy trains in the manner before noticed. Trains "on time" within station limits and protected by signals are where, by the time table, they may be expected to be found, and therefore there is no excuse during daylight or clear nights for an approaching train causing a collision at a station. When trains are *late* and are shunting at a station upon the time of another *stopping* train the danger is not so great, but late trains must not be allowed to shunt vehicles "on" or "off" into sidings on the time of a *through* passing train, because, even with signals, it is risky.

The same remarks apply to horse-shunting odd carriages or waggons on or over the main lines upon the time of a *through* train. Here likewise the ten minutes safety interval comes into play and should be rigidly enforced. The simple exhibition of the distant danger signal does not always cover the risk in respect to shunting. Where the signalman's view along the line up to the distant signal, or his view immediately beyond the distant signal is obscured by the line of country, an approaching train may be near upon the distant signal the moment before it is raised or even may then have passed it. Thus an interval of a few minutes sufficient for a train to travel from the distant signal to the station should elapse after putting up the signal before the vehicles are put upon the main line at the station. Of course at night time there is the greater necessity for this precaution.

If vehicles are detached from the rear of passenger brake vans on the main line and left to be horse shunted into a siding the shunting should be done expeditiously. The signalman should be advised of the shunting to be done, so that he may not be misled by the departure of the train to suppose the line to be all clear, but keep his signals at danger until all the vehicles are removed off the main line. The rule, with most companies, requires that at night a red light should be displayed on that vehicle *which may stand as the rear vehicle* until all the vehicles shall have been shunted into a siding.

At intermediate "stock" stations without traversers, where passenger carriages are likely to be taken on or off, there should be convenient short sidings near both up and down main lines with trap points. The chief object is speed, so that the least possible time may be occupied in taking a carriage on or putting one off. Care must be taken to transfer the red tail lamp from the last vehicle about to be detached to the succeeding last vehicle upon the train; but in doing this, another tail lamp or hand lamp with the red light turned on must

be substituted on the detached vehicle until it is removed into the siding.

Where sidings are on inclines, and particularly where railways are adjacent to the sea coast, vehicles may be blown by the wind out from a siding on to the main line. Such sidings should therefore be provided with stop blocks, and some of the wheels of vehicles put into the sidings should be tightly spragged, particularly at night time; and when there are brake vans among the vehicles, the brakes should be tightly screwed and pinned down. When the inclines are particularly steep, short check or safety sidings with buffers at the end and trap points are necessary, so that runaway vehicles may run into these and serious collisions be prevented.

Sidings that are outside the limits of a station yard and that are specially risky, the end vehicle upon them should be secured by a chain and padlock round one of the wheels to prevent the wheel revolving and the vehicle moving.

Where carriages are put on to sidings, and such sidings run parallel with a main line, or run parallel with another siding, the last vehicle should be sufficiently over and beyond the points as to admit of a man walking freely between say, two carriages standing in juxtaposition on the two sidings. This space, giving freedom of passage, will prevent engines or other vehicles coming into collision with the carriages, from their not being far enough over the points, to free the passage on to the parallel line of rails.

At terminal stations arrival trains should be quickly shunted from the platform siding into a lay-by siding, so as to keep the arrival platform free to receive the next train. Where the carriages of an arrival train are to form the next departure train, they may at once be shunted into the departure platform, unless they may require to be first washed.

It is allowable for engines to push empty vehicles when shunting within the limits of a station yard, but then only conditionally upon all the vehicles being coupled together and the end vehicle coupled to the engine. The process of an engine pushing carriages forward from the rear is dangerous, because the engine driver cannot see possible obstacles in front; and if the carriage at the end farthest from the engine should meet with any unexpected obstacle, some of the carriages may be telescoped one into another; and if the carriages were to contain passengers some of them might be killed. Vehicles should not be propelled in this manner outside a station yard either empty or loaded with passengers, and when shunting after this fashion in long sidings, a shunter should ride on the top of the front vehicle to check and direct the driver by signals, when the driver cannot see far enough ahead.

The rules and regulations provided by each company fixes the formula as to the signals by hand motions or lights that are to be used in shunting, and it is necessary for an agent to frequently see that the shunters really use the proper signals. Looseness in the signalling between shunters and engine drivers is very liable to lead to accidents.

One siding in a yard should be specially set aside for carriages requiring repairs, and it should be an outlying siding where shunting seldom occurs. If there is no stop block to the siding, a baulk of wood placed across the rails, or a red flag stuck in the ground should be provided at times when men are at work under vehicles examining or repairing them, otherwise fatal accidents during shunting may take place.

It should be made the special business of one man, or, if necessary, several men, to *clean* with paraffin oil and common oil the buffer rods of carriages and the screw couplings, and to collect broken couplings and links strewn about the yard. He should also be the custodian of spare screw couplings and have a place to keep the bulk of the reserve stock under lock and key. The foreman porter should see that the work is well done, and if failures often occur the cleaner should be made to give the agent a daily return, showing the numbers on each carriage the buffer rods of which he cleans, also the total number of screw couplings cleaned.

The following comprise a few matters that require attention in a yard :—

- (1.) In frosty weather, water cranes and hydraulic apparatus require to be hay-banded and sometimes fires lighted at the foot of water cranes to prevent freezing, so that the water supply for the engines should not be stopped.
- (2.) During the day, and particularly just before dark, some one who can be trusted should see that the fixed scotches, the catch or safety points, and the facing points are rightly set and safe.
- (3.) A similar inspection should also be made daily, to see that empty carriages on hand upon sidings have the windows closed and ventilators open, and that roof and side lamps have been removed or at least extinguished, and lamp plugs put in to keep out rain.
- (4.) Sprags and hand scotches should be always available and handy in a yard, but not too plentiful. A reserve stock should be kept locked up, and given out with care and not too profusely.
- (5.) The cleaning of points will be found under Goods. (See Goods Index.)
- (6.) The points of outlying sidings beyond the limits of the station yard should be kept locked, whether inside or outside the distant signal, and the key kept at the protecting signal box.
- (7.) The tapping or examination of carriage wheels, at particular stations, devolves upon the carriage and waggon department, but an agent observing any discontinuance or inefficiency in the doing of the work, should report the fault to the district officer.
- (8.) The greasing and oiling of the axle boxes of vehicles is treated under Goods. (See Goods Index.)
- (9.) Facing points always require to be held when vehicles are being shunted over them, and when the points work loosely

they require to be very tightly held or they will open. If the pointsman holds the lever with insufficient pressure, the wheels of one vehicle may take one line of rails and the wheels of the next vehicle the other line of rails, and a "run off" is the consequence.

- (10.) When the weather is wet, foggy, snowy, or specially damp, the rails necessarily become slippery, and sand must be put upon the main line and sidings, at places where the inclines are steep.
- (11.) Where regular shunting engines are kept at stations, the train engines should be relieved as much as possible from the work of shunting, both before the departure and after the arrival of trains. On most lines there is a fixed regulation time, but trains should not be started late, because the time allowed at any particular station is insufficient.
- (12.) On busy lines with continuous traffic, light engines returning with or without vans should, as far as possible, return attached to a train. The light engine and van should be attached between the train engine and the first vehicle on the train.
- (13.) One man, or when necessary, several men, should be fixed with the responsibility to light all the station and distant signals just before dusk. In like manner some men should be fixed with the responsibility to put out the signal lights at broad daylight in the early morning.
- (14.) In foggy weather and during snow-storms, special precautions (as provided in the rules and regulations) should be taken in respect to fogmen, lighting signals, and the free working of signal apparatus and points.
- (15.) The hooks of side chains and the brake tubing at the ends of vehicles should be hooked up from dragging on the ground, so as to prevent injury to shunters while coupling vehicles, or damage to the permanent way.

CLEANING CARRIAGES.—The carriages and vehicles that require cleaning include—

First class carriages.	Horse boxes.
Second "	Carriage trucks.
Third "	Dog boxes (in carriages, guards' vans and horse boxes) cleaned and disinfected.
Sleeping "	
Guards' brake vans.	

The inside cleaning necessary to be done is (1), shaking and beating the carpets and cushions; (2), brushing the padded sides of carriages; (3), sweeping and occasionally scrubbing out the floors. The outside cleaning is (4), washing the sides and ends of the vehicles; (5), cleaning the windows; (6), cleaning and brightening the door handles and other metal work.

Any man will not make a carriage cleaner, no more than that any man will take to house cleaning. When a good gang of carriage cleaners have been collected, it is then easy to introduce now

and then a young man and train him to the work. If, however, a gang of carriage cleaners have degenerated, it is a good plan to introduce a few sailors, and preferably navy pensioners, and a few men who have been bedroom stewards on foreign going steamers. The former are good at the outside cleaning and the scrubbing of paint, while the latter are equally so at the inside cleaning of first class and sleeping carriages. Where there are a number of carriage cleaners a head cleaner or foreman is necessary, who should receive a little higher pay than the others, and be fixed with the responsibility of seeing that the work is well done.

Cleaning cannot be done without good appliances, which require to be kept in first class order, and freely renewed when insufficient for the purpose. Many people seem to think that a brush or a cloth, whether it be clean or dirty, will remove dirt. But dirt is a deposit of misplaced earth and can only be removed either by dusting, or liquifying it with water, and facilitating the water carrying it away into a drain, or by using some absorbent substance as sponges, dusters and cloths. If a brush, sponge, or cloth has absorbed, and is allowed to retain an undue amount of dirt deposit, then to use such an appliance for removing further dirt deposits, either on the outside or inside of carriages, is merely rubbing dirt into dirt, and damaging the painted or varnished surfaces upon which the dirt deposit has accumulated. Thus there should be a systematic cleansing of brushes, sponges, wash-leathers and cloths, and two sets in use, so that every second day or so one carriage cleaner may make the appliances clean while the other men are at work upon the carriages. Care should be taken in cleaning that portion of carriages where there are gilt letters or painted devices so as not to deface them.

Where there is a gang of cleaners at a station it is best to depute the inside cleaning to certain particular men, and the outside washing to other particular men. Each outside or inside cleaner should deal with and complete one carriage, and the numbers of the carriages cleaned, and the men cleaning them should be recorded in a daily return to the station agent. If then, a passenger complains of a particular carriage being dirty, the man in fault who ought to have cleaned it or who insufficiently cleaned it, can be identified and punished. By holding all the cleaners jointly responsible the agent is unable then to single out a defaulter in a specific case.

At many stations a bucket of water to dip the long handled brush into is the best water supply available. At large stations where there are many carriages to be washed there should be a better water supply. At some stations long water troughs with concrete bottoms are sunk along, and between the sidings upon which the carriages are cleaned. These water troughs are somewhat similar to those used between the rails for engines in motion to take up water for their boilers. A carriage washer can dip his brush into the water trough or channel at any part of the siding, without having to carry about a bucket of water which soon becomes dirty, and requires to be replaced with clean water. At other large stations there are hydrants at fixed distances along the sidings, and by the aid of leather hose, and a hand

discharge pipe, if there be a good pressure of water, it can be thrown upon the sides of the carriages with some force, sufficient to wash off the dirt. This plan reduces the brushing to a minimum, because the force of the water loosens and takes away the dirt. Another plan is to have a long handled carriage brush with a metal tube up the inside of the handle. Between the bristles of the brush small holes are perforated in a metal plate like the rose of a watering pot. The top of the brush handle has a tap, and is connected by India-rubber tubing with a hydrant. The water is turned on, and while the carriage washer is rubbing the side of the carriage with the brush, the water is thrown upon the surface which the bristles of the brush are rubbing. This plan, when the water supply is good, reduces the labour to a minimum, and with ordinary care and diligence the washing work can be quickly and well done. This kind of brush does not seem to be much in use. A Mr. Reuben Baxendale, on August 12, 1858, took out a provisional protection at the Patent Office for a brush on this principle, but the patent was not proceeded with, and the idea is therefore now public property.

The appliances required for cleaning carriages are—

For outside cleaning—Galvanised buckets.

Mops.

Brushes.

For inside cleaning—Stiff hair brushes.

Soft " "

Canes to beat cushions.

Wash leathers.

Dusters, sponges.

Cotton waste (not oiled).

Soft soap, rottenstone.

Brushes may be cleaned by frequently dipping them in very hot water in which some washing soda has been dissolved. Let them dry in the sun. Sponges are readily cleaned by being rinsed in urine.

Carriages require to be washed and cleaned after every journey, unless when the journeys are short, as with omnibus traffic. At terminal stations where there is a gang of men with all their time devoted to carriage cleaning, the work should be better done than at intermediate stations, where only ordinary porters are turned on to carriage cleaning when they have nothing else to do. It is the best plan to use the terminal station as a training school for carriage cleaners, and when a man has become experienced in the work, remove him to an intermediate station as a head cleaner, to direct the ordinary porters there.

HORSES AND CARRIAGES.—LOADING HORSES.—Considerable risk arises in the loading of horses, as many spirited animals exhibit great nervousness and often natural vice when an attempt is made to confine them in a railway horse box. This risk a railway company is anxious to avoid, however willing they may be to accommodate their customers, while this particular risk the customers too frequently endeavour to fix upon the company.

It is customary with most companies not to book horses until they are first loaded by the sender, the object being to postpone the acceptance of the contract to carry, until the risk of injury to the animals during the process of loading shall have passed. But notwithstanding this precaution, if the company's servants in rendering assistance in the loading take upon themselves a leading part and give directions, the chances are the company may still be brought into some legal liability, and juries are always eager to give verdicts against railway companies.

The horse box should be made clean and disinfected, and the flooring should be sound and covered with straw or other suitable material. The fastenings of the partition should admit of it being firmly secured, for a loose partition knocking against a horse, owing to the motion of the train, is likely to frighten the animal. The horse box should be placed alongside a suitable landing place, and the landing should be free from all obstacles and afford free access for the horses to be led by the owner or groom straight into the railway box. There should be no rails, iron, round timber, empty packages or the like, lying about the landing platform against which a horse curvetting round may become injured. When all is ready the owner of the horses or the groom should be told to commence to load the horses, that is, to lead them into the railway boxes. The railway foreman and porters should only take a neutral part in the loading, assisting but not directing, or controlling, or taking a leading part in the matter, because if they assume any authority, such action may make the company liable if any accident should occur.

The case of *Hodgman v. West Midland Railway Company*, tried on appeal in the Queen's Bench, June, 1864, illustrates the law on the question. A race horse was brought to the loading bank at Worcester station, probably after Worcester races. A porter called out "London horses this way," and the groom took the horse in the direction indicated. There were a quantity of sharp edged girders or rails lying on the bank. Another horse in front became terrified and backed upon the plaintiff's horse. This caused plaintiff's horse to back suddenly against the girders, and the result was that plaintiff's horse became injured by the sharp edge of one of the girders and it became necessary to kill the animal. No ticket had been given and no declaration of value made. The practice was not to issue the tickets until the horses had first been loaded. On the first trial at Westminster the plaintiff obtained a verdict for one thousand pounds. On the appeal case this was reduced to fifty pounds, the maximum for a horse uninsured under 17 and 18 Vic., cap. 31, section 7.

Chief Justice Cockburn who tried the first case held that the horse had not been accepted by the company, and that the Act in question was consequently not applicable, but that the company were liable on their common law liability for negligence in allowing the obstruction. He said—"It is brought against them, that, as owners of a yard, across which they invite the public to pass, for negligence in not keeping the yard in a proper condition so that it could be passed with safety, it being now settled that any one inviting the public to a

given place for purpose of business, is bound to take reasonable care that the place in question can be entered in safety. It makes no difference that the defendants are railway carriers. Their liability arises in their characters of owners of the yard, not of carriers, and the statutory protection afforded them as carriers, and as carriers only, can have no application."

Justice Mellor on the appeal case said—"In the provisions of the 17 and 18 Vic., cap. 31, section 7, it is stated, 'with respect to receiving, forwarding and delivering of any such animals'—then follows the proviso as to fifty pounds being the maximum value the company shall be liable for in the absence of a declaration. The horse was sent to the company's premises for the sole purpose of being *received, forwarded and delivered*, and I think the accident occurred in the course of the delivering to and the receiving by the company. It cannot, I think, be contended that the limitation of the liability of the company only commences with the taking of the ticket, for, if so, the act of receiving the horse would be complete by placing it in the box before the limitation would attach. It appears to me the more reasonable construction is that, so soon as the horse *enters the company's premises* for the purpose of being received, forwarded and delivered, the act of delivery begins; and that if the person sending a horse to be carried on the railway desires to be in a position to recover against the company greater damages than the amount limited by the statute, he must *have made* the requisite declaration of value before the horse was taken to the premises of the company, and before the act of delivery begins."

The following deductions may be drawn from the preceding case :—

- (1.) That under certain circumstances a railway company's liability commences before the act of loading or booking.
- (2.) That when a horse enters the company's premises or yard to be sent by train, the act of delivery has commenced, and the company, under certain circumstances, may be held liable up to fifty pounds per horse.
- (3.) That if a sender desires to insure a horse for over the fifty pounds limited by statute, he must make the declaration before the horse is taken into the company's premises to enable a larger sum to be recovered.
- (4.) That when there is a rush of horses to a station for conveyance, as at race times, a man should be posted at the yard gate, and he should only allow as many horses to pass in at a time as may be conveniently and safely loaded.
- (5.) That railway companies should give public notice, that declarations of the value of horses to be insured over fifty pounds must be made before the horse enters the company's premises.

When the horse is loaded into the horse box, it would appear to be the safer plan to require the owner or groom to secure the horse. This is forcibly illustrated by the case of *Moffat v. Great Western Railway Company*, tried in the Court of Common Pleas, February, 1867, as follows :—

"A mare was strangled in a horse box at Ilich Wycombe station. The mare had been loaded into a horse box which was waiting for the train. A porter hearing a noise looked into the box, and found that the mare had got her foot into the manger in front of her. She then slipped, and was strangled by the head rope before a knife could be got to cut the rope. She was tied with two ropes, one two feet and the other three feet long. It was not stated who tied her up. Plaintiff maintained that the two ropes should have been only eighteen inches long. Justice Keating told the jury, 'The negligence suggested here was that the halters were not of the same length. It was for the jury to decide this. It was for them to consider whether it is reasonable on the part of the public to expect that a railway company should gauge at their peril, the length of a halter which a blood horse, as distinguished from other horses, required. The viciousness of the animal was also a question for them to decide.' The special jury gave a verdict against the company for twenty pounds."

The foreman or porter, before allowing horses to be loaded, should see that the fastening appliances in the horse box are in order and fit for use. On some lines the practice is to tie the horse's head with two halters, one above and one below, giving a play of about five inches, and leaving the head in an easy position. Horses vary in temper, and the owner or groom should be the best judge of the position in which the horse should be tied, so that it will travel safely. We know of one case where a horse in a railway box succeeded in turning itself completely over upon its back, in which position it was found dead.

When a horse is placed in the outer stall of the box, care should be taken in closing the doors that they should be gently and cautiously closed and not slammed.

The remarks in booking cattle also apply in booking horses. (See under Cattle.)

UNLOADING HORSES.—The unloading, like the loading, should rest with the owner or groom. The horse's head should be untied and held, before the doors of the van are opened. The horse, upon being unloaded, should be closely scrutinised to see if free from injury, and, if injured, the extent of the injuries ascertained. The owner or groom should be asked if the horse is "all right." The owner or groom should not be allowed to take away any of the company's fastenings. If horses are found to be injured it is advisable to at once call in a veterinary surgeon to hold a survey upon the horses and determine the full extent of damage at the time of delivery or as soon after as possible.

LOADING AND UNLOADING PRIVATE CARRIAGES.—The carriage truck should be pushed up close to the platform landing and scotched in that position, to prevent it moving when the private carriage is pushed upon it. Scotchies are also necessary upon the carriage truck, to prevent the private carriage being run on to and over the carriage truck on to the line, and thereby smashed. Scotchies should also be

made fast under each wheel, when the private carriage has been placed upon the truck, and the wheels strapped to the truck, to prevent the private carriage getting off the truck during transit. A careful man should control the pole or guiding wheels of the carriage while it is being pushed on to the truck. There should be plenty of help and, if possible, a man to each wheel. Where there are overhead trassers to load private carriages on to trucks, the risk is reduced to a minimum and the work done much quicker. The same also applies when private carriages are loaded in special covered carriage trucks. The condition of a private carriage, and particularly the varnished surfaces, should be closely scrutinised at both the loading and unloading, to keep the company free from claims.

All private carriages should be placed upon a train with the back of the carriage towards the engine, to prevent damage by sparks, &c. The back of a private carriage affords no places in which sparks could find a lodgment.

ARRIVAL OF PASSENGERS.

Platform too short for train—arrival train bell summoning porters—unlocking carriage doors—attention of porters to passengers—posting of porters on platform—what a porter should do for a passenger—trains over-running platforms—accidents in alighting from carriages—invitation to alight given by company's servants—names of stations on boards and lamps—porters calling out names of stations—names of stations before windows—passengers changing at junctions—boys as guides at junctions—cab regulations—badge or outside porters—guards with trains when within station limits, under agent's control—guards taking correct time along the line—guards advising agents of putting on or taking off carriages—taking time of arrival and departure of trains—drivers disregarding signals—inspection of couplings at stopping stations—last vehicle to have tail and side lamps—passengers changing class of carriage at stopping stations—shunting slow trains for fast trains to pass—precautions with "slip" carriages—collection of tickets—kind of men for collectors—one collector to complete one carriage—passengers dilatory in finding tickets—notice to be given at station preceding examining station—collection of tickets at exit gate—passengers without tickets—collected tickets to go to audit office—fraudulent issue of tickets—guards' duties on arrival at terminal stations—excess fares, accounting for—general platform work.

It is found the arrangements and difficulties incidental to the delivery of passengers on their arrival are very much less than with the delivery of goods. There is no marshalling necessary with arrival passengers, for they readily alight, and if afforded a safe alighting place and sufficient platform area, they swarm away into the street on foot or in cabs. At small intermediate stations the tickets have to be collected after the passengers alight, but at large stations the tickets are more readily collected at ticket platforms outside the stations.

Arrival platform lines of rails should be kept free to receive trains when they are due. The platform at a station should be sufficiently long to allow all trains of ordinary length to land their passengers at the platform. Great danger arises when a train extends beyond a platform at either of the two ends, so that passengers have to alight on the side of the line beyond the platform.

When a train is in sight and approaching, a bell or gong should be sounded at the station by a look-out man to summon all the porters to the arrival platform to be ready to attend upon passengers. In some cases it is convenient to use an electric gong from the ticket platform or from an outlying signalman's cabin.

As a train is slowly drawing alongside the platform the porters should be well distributed along its entire length to unlock and open carriage doors quickly. Passengers should be prevented alighting until the train comes to a stand, particularly when the train arrives with the carriage doors unlocked. Porters have too much the practice of hovering about first class carriages, which should be checked, and

may be prevented by allotting the passengers in first class carriages to the care of certain selected porters, week about in turn. Thus the men who are taking their turn for the week will keep their fellow workers from interfering, unless when the selected men are insufficient to attend to the requirements of an increased number of first class passengers. It is a grievance with the public that second and third class passengers do not get adequate attention equal to that given to the first class passengers, and it is a grievance that should be remedied, and may be remedied if the porters are closely supervised.

A good platform inspector is here of great service in keeping a keen watch upon the positions in which his men are posted and their acts at train times. He should momentarily realise deficiencies, and hold in reserve a man or two so as to be able to put forward one here or there to fill up the gaps. The difficulty the porter has to contend with is to strike the mean of what he should do for a passenger. The too common practice tends to extremes in either doing next to nothing, or, in the expectation of a tip, wasting too much time in fiddle-faddle. The porter with an eye for a tip often does too much, while the independently minded porter does too little. The men should, however, be compelled to give reasonable attention to third class passengers, particularly to old men and women and children, who frequently suffer on long journeys from being timid and being unaccustomed to railway travelling. Porters specially devoted to third class passengers should receive one shilling per week above the other porters to keep them to the duty and to keep their minds free from hankering after tips.

A train over-running the platform at an intermediate station by one or two carriages is extremely awkward, and it is far better, when a driver finds he cannot stop his engine within the end of the platform, to run on a distance beyond the platform, when there is no junction or impediment. By doing this no passenger will attempt to get out of a carriage away from the platform, and if he does it would, in a legal sense, be at his own risk. If one carriage extends beyond the platform, the people in it will try to get out because they see other persons alighting. The train cannot at once be backed, because passengers are in the act of alighting. By running the entire train forward clear of the platform, it can then be backed without any difficulty and no more time is occupied and in many cases time is saved. Under the section treating of legal questions this matter is more elaborated, but one thing should be clearly fixed upon the minds of the station inspector and porters, and that thing is, if a person, either in the day or night time, in alighting from a carriage situated beyond a platform sustains an injury, the question a judge will consider is, whether an invitation was given to the passengers to alight. If there was an invitation it affects the question of "contributory negligence." Two acts that help to constitute an invitation to alight are (1), unlocking or opening a carriage door; (2), calling out the name of the station. Consequently if a carriage has passed beyond the platform neither of these things should be done *by any servant of the company on the platform*; but on the other hand notice should be showed out to "keep your seats."

Facilities to enable passengers to ascertain that they have arrived at the station where they wish to alight cannot be too profusely multiplied. Painting the names of stations upon the seat rails and platform lamps has been a step in the right direction. It was formerly very absurd to suppose when passengers were wedged in a compartment, five on a side, that those distant from the window could get a sight of the one solitary board exhibited at the centre of the platform. Many persons have not sufficiently good sight to read the name on a board when the train is running into a station. The Board of Trade recommend that the names of stations should be painted on lamps and other conspicuous places. This, however, is not yet sufficiently done at some stations, for there should be no part of a platform where a train may stand but that the name of the station may, certainly during the day time, be visible to *each person in each compartment*. At small country stations lamps along the platforms with the name of the station painted thereon should be arranged, not opposite each other, but intermediary. Passengers would then have a chance at night time of seeing a lamp either on the one platform or the other, except in those special cases where an up and down train might both be at a station at the one time.

When the advertisements are crowded round the board with the name of the station upon it, as upon the Metropolitan lines, it is very confusing to passengers' eyesight.

Maps in each compartment would greatly assist passengers in watching the progress of the train from station to station, so that they might know when to alight. Cheap skeleton maps could be printed on fine linen, and mounted upon the inside of the roller blinds. The larger blinds would suit to show the map of the entire line, or the long through routes, and the smaller blinds, maps of populous districts and suburban districts.

The guard and porters should shout out the name of the station, provided they see the train is not likely to over-run the platform. Every endeavour should be made to correct the provincial twang peculiar to porters at country stations, for although they may murder the Queen's English in an ordinary way, they ought to be made to pronounce correctly and distinctly the name of the station where they work. A gentle hint that they may be dismissed unless their articulation is improved, is likely to have a salutary effect upon them.

Our mechanical ingenuity has not enabled us to achieve the accomplishment of a design we have often pondered over; that is, to fix an apparatus on the near side of the train which, at the top of each window either outside or inside, would from time to time show the name of the next stopping station. Possibly by the aid of rollers and the application of the same principle as applied with a tape band in date cases, the guard by turning the rollers from his van could at the one operation display at each window the name of the next stopping station. Some appliance that would carry out this object would be of great service to travellers, and would save delays to trains at stations by passengers alighting from carriages quicker.

At junction stations it should be the special duty of one or more careful men to go to each compartment to warn passengers whose destination may require them to change carriages there. At stations where all passengers have to change from particular trains, the compartments should be carefully examined, particularly with night trains, otherwise passengers who are asleep may be left behind or overcarried. We recollect years ago an old Indian Colonel giving us great abuse owing to an oversight of this kind. He was travelling from Wolverhampton to Worcester, at which latter place he had next morning to review troops, and to avoid getting up to leave by the 5 a.m. train he was making the journey at night. Being asleep (which however he denied), he did not change out of the London and North Western Company's train at Dudley, and the carriages were put on to a siding. Some half-an-hour afterwards, when the Worcester train had left, he awoke and opening the window called out to know "when he was going on." Upon being informed that the Worcester train had gone, he was full of wrath. He had to sleep the night at an hotel in Dudley, and still had to get up for the early morning train. The poor soldiers probably suffered.

The marshalling of passengers at junctions where there are a number of platforms is of great importance, because it is mostly at the junctions where the mischief occurs of passengers getting into wrong trains. At busy junctions our plan would be to keep a few smart boys from fourteen to sixteen years of age in uniform, and make them "conductors" to carry rugs, &c., and marshal ladies and aged persons to their trains from one platform to another platform. Less porters would then be necessary and the expense would be about the same, while the boys would be in training to become efficient porters after four or five years' service.

Assuming that at a terminal station the passengers have all alighted from the train on to the platform, their tickets having been previously collected at the ticket platform, then the next process is to deliver the luggage and seat in cabs those passengers who intend to ride from the station.

Cabs are admitted into a railway station yard, which is private property, upon certain conditions, which are usually embodied in a set of cab regulations, and by these regulations the drivers are controlled. If the agent finds a particular cabman unusually obstreperous or drunken, the owner of the cab should be given notice that the particular cabman will not in future be admitted into the company's yard. This generally results in the cab proprietor discharging the cabman, and, when this happens occasionally, the other cabmen become reasonably quiet and tractable. An evil sometimes arises when an astute porter and cabman form an alliance, offensive and defensive. The porter becomes a touter for the cabman to pick out from among the passengers arriving, the good fares, and good fares are usually those where the cab journey is long, the luggage extensive, and the persons, such as ladies, children and servants are numerous. These little compacts between cabmen and porters can be frustrated by the policeman keeping the cabs strictly in turn, and as far as space permits,

working them in a circle, the last in taking the turn last out. No more cabs should be allowed to draw up to the place where the passengers enter the cabs than the place will conveniently accommodate. Double rows of cabs necessitate ladies and children going under horses heads to reach the cabs in the second row, which is inconvenient and unpleasant, not to speak of the difficulty of carrying the luggage. Many objectionable things have to be endured when the space is limited, or there is an unusual press of traffic, but these evils should be remedied as far as possible. When a cabman is "on hire," he is legally bound to accept any sober healthy person who desires to hire him; but to legally prove the cabman has refused to convey a person, it is necessary for the person to offer him the money, which must not be less than his proper fare to the place. It is the best plan, if convenient, to get into the cab, and then if cabby refuses to go on make a legal tender of the fare, when, if necessary, he can be summoned before a magistrate and fined. The cabman is like the carrier, if he professes to carry he can be made to fulfil his public offer.

Most of the passengers having engaged their cabs and loaded their small packages the next step is to get the luggage claimed (see under Luggage) and loaded on to the cabs; after this shall have been accomplished, the quicker the cabs can be despatched the better, and as a cab is ready to start, the policeman should take care that the way out of the station yard is clear and that cabmen with empty cabs looking out for fares do not obstruct the loaded cabs going out. As soon as a loaded cab draws away the policeman should at once marshal into its place an empty one the next on turn. The policeman must be a resolute man, if he is to do the duty well, otherwise he will be unable to prevent confusion or quell the excitement of the cabmen scrambling for fares.

Outside or badge porters are of great service to passengers who have only a short distance outside the station to take their luggage or whose means prevent them hiring a cab or omnibus.

By selecting as badge porters, men or youths of good character and of cleanly appearance, passengers are better served, and a number of loose, disorderly boys and men are kept from congregating about a station because the badge porters intercept passengers going to the exit gate and take away the chances of the odd loiterers. It is sometimes hard upon a poor boy who is prevented earning a few pence by carrying a bag, but, unfortunately, all poor boys are not trustworthy, and it may therefore, in the end, be better for the really deserving poor boys to be forced to seek more permanent work elsewhere. By appointing as badge porters, at country stations, boys, the sons of regular porters, they are put in training to become regular porters and at no expense to the company. At some stations these badge porters are expected to do some station cleaning work, and at some of the London stations they pay one shilling and sixpence per week in exchange for their special privilege of access into the stations during train arrival times. At country towns it would answer in some cases to transfer and superannuate old porters on half wages and let them act as badge porters for carrying light packages to earn a trifle.

Guards arriving at terminal stations should not be allowed to leave the station immediately after the carriages are clear of the passengers. They should remain until the following matters have been attended to :—

1. That the passengers are satisfied that they have obtained all their luggage in safe order.
2. That the parcels are given over by the guard and are checked with the way bills and found correct.
3. That the letters and despatches are delivered to the authorised place or person according to the practice laid down.
4. That the guards train journal is delivered up to the person authorised to receive it.
5. That the guard compares the time by his watch with that by the station clock to make sure that he takes away with him the correct time, to prevent his attending late, to take out the next train allotted to him.

The preceding remarks are in a large measure applicable to the arrival of trains at terminal and large stations, and it is therefore necessary now to refer to other work pertaining more particularly to intermediate stations where trains stop, and after putting down and taking up passengers, go forward.

As soon as a train enters any station and until it leaves, the guard is under the control of the station master. The guard of the first passenger train traversing a railway of a morning usually gives the correct time from his watch to the agent, so that the station clock may be regulated, unless where the time is sent by telegraph, which is done on some lines. The guard obtains the correct time from the chief clock at headquarters. If a guard requires to take on or put off carriages at a station he should, to save time, give the agent notice the very first thing on the arrival of the train.

Under "platform departure" has been specified the things necessary to be done by an agent before a train is started from his station, but it may be well to recapitulate here some little matters, adding one or two additional things that specially apply to intermediate stations.

1. To note the exact time the train arrives and departs, and to keep the greatest possible pressure upon the staff and passengers to hasten its departure. Three minutes stoppage at each of twenty stations adds an hour to a journey.
2. To note any disregard of signals by engine drivers, and report same to the officer of the district.
3. To either inspect or see that some person at the station looks at the couplings between each carriage, and if necessary, tightens them up or makes them secure.
4. To note that tail and side lamps are attached (when required) to the last vehicle on the train, and that they are lighted if the time be after dark.
5. To note if any passenger changes from one class carriage to another class carriage, and in suspicious cases, to at once demand to see the passenger's ticket.

6. When several permanent way men or line men travel by passenger train it is well to put them into a compartment apart from other passengers, if there is an available compartment.
7. The question of shunting slow trains for fast trains is treated of under "yard," which see.
8. When passengers are expected to arrive in "slip carriages" slipped off quick trains, a good look-out should be kept in case the carriages should over-run the platform and assistance be required. Immediately the passengers have alighted the carriages should be shunted off the main line.

COLLECTION OF TICKETS.—Failures in collecting tickets at arrival stations from passengers offer incentives to fraud. If no ticket remains uncollected, then an old expired ticket cannot be fraudulently offered by a passenger. It is no uncommon thing for a person to get out of a station at race times without giving up his ticket and using the same ticket the next year when the race meeting again comes round. Where stations are insufficiently fenced and protected, extra men should be posted during busy times at all possible exit places to keep passengers from passing out of the station premises other than by the exit gate where the tickets are collected.

The examination and collection of tickets, either at a ticket platform or an exit gate, is a process which should be done with the greatest possible speed, consistent with accuracy. A fumbling ticket collector unnecessarily detaining a train full of passengers is a deplorable sight. Either old men or youths are generally unfit for the duty, unless where an old man has been always a ticket collector. Active, intelligent young men, of over twenty years of age, are most suitable. A man with a prominence of the forehead just over the eyes will make a quick ticket collector. By passing the finger up the front of the nose to where the nose joins the forehead, in some men, the skull at this point, which may be termed the root of the nose, will be found to protrude, and, in some instances, form quite a lump. Men of this type are quick, ready and observant, and most good detectives have this development. If the hair of the head and whiskers also is fine in texture and quality, so will the owner be the more incisive and perfecting in character. A ploughman cannot be expected to make a watch, nor will a clumsy, lolling man make a ticket collector.

It is found the best plan for one man to collect all the tickets in one carriage, therefore, if there is more than one ticket collector at a ticket platform, the men should divide the carriages accordingly, and it is useful, when there are two, or more collectors, for them to take the numbers of the carriages in which they have collected tickets.

One cause of delay in the examination and collection of tickets in carriages at a ticket platform is the dilatoriness of passengers in not having their tickets ready. The guard should do his best by calling out "Tickets ready," to hasten the passengers finding their tickets. Another plan which we have not seen often in use might also be adopted in the day time, particularly with local trains, that is, for the

guard to call out when about to leave the station preceding the examination station, "Tickets will be examined at the next station." This would give the passengers more time to find their tickets.

There must be an adequate number of ticket collectors at a platform if the work is to be done quickly, the time occupied is entirely dependent upon the number of men employed. During excursion times and other busy times supernumerary ticket collectors should be put on to increase the ordinary staff. A smart ticket collector will, in about five minutes, examine and collect tickets in four carriages, assuming the carriages to be half filled. Taking this as a basis it may be easily estimated how many collectors will be necessary under any given circumstances.

Where the tickets have to be collected at an exit gate leading out of a station, the same precautions, but in the reverse way, are necessary in marshalling the passengers, as explained under Departure Platform Ticket Checking. When there is no special ticket collector, as at small stations, the exit gate must be kept locked until the arriving train has departed, because the staff is usually too limited to collect at the one time the tickets of passengers who have got out and attend to the work incidental to getting the train away. Two collectors, during a race time, have collected at one gate a thousand tickets in seven minutes.

Ticket collectors have often to contend with difficult cases—(1), passengers who have tickets, but who, from either being drunk or stupid refuse to produce them; (2), passengers who refuse to produce any ticket and likewise refuse to pay the fare; (3), passengers who pretend to have lost their tickets; (4), passengers who persist their tickets were taken from them at a previous examining station by the collector. All that a ticket collector can do in such cases is to insist upon the passenger producing his card, or a directed envelope with his name and address. To forcibly eject a person from a carriage may make the company liable for damages for an assault. To arrest, give into police charge, or lock up a person in the railway station, may make the company liable for false imprisonment. The detention of passengers' luggage (if he has any) *that has been carried in the company's charge* is a form of pressure least liable to involve the company in any subsequent legal damages. The luggage, however, can only be detained for the fare, the fare being a debt. An offence against the bye-laws *must first be proved in a court* before the penalty becomes a debt.

The law courts have definitely settled the point that a passenger cannot, as a punishment, be made to pay the fare from the station whence the train commenced its journey to the station to which the passenger has been carried. Hence what can a ticket collector do with a troublesome customer? He must accept the best evidence he can obtain as to the station from which the man without a ticket has travelled. Possibly some passenger in the same compartment can state the place at which the man entered the carriage, or, perhaps the guard may know. He can hardly have travelled from a point beyond the previous ticket examination station, or his being without a ticket would have been discovered there. Cases of this kind are most vexatious, for while the law is powerful to protect the company from fraud, the

difficulty is to truthfully appraise the facts from a legal standpoint on the moment. If the company cannot legally prove fraud, then they are likely to become liable, either for assault or false imprisonment, and it is better to let a swindler escape at a loss of a few shillings than that the company should afterwards be made to suffer heavy legal expenses and a loss of many pounds. (See under Legal Questions for the legal bearings of these cases.)

The collection of and accounting for excess fares should be sharply looked after, and the collectors' counterpart receipt books frequently examined. Men whose habits or conduct are loose should be removed from work where there may be a chance of their having to collect excess fares. Sometimes passengers do not accept the receipt given from the counterpart book, and as it is usually written in pencil a dishonest ticket collector may use it upon another occasion and pocket the fare on the second occasion. There is no convenient absolute check to prevent fraud. It might be desirable where ticket collectors are in constant receipt of excess money to provide them with a small brass money box convenient to carry in the pocket, and require the passengers to deposit the excess fare in the box. This plan, however, would require the ticket collector to carry change. This plan is in force on the Leeds Street Tramways for the collection of fares.

The points to be observed in examining and collecting tickets are:—

1. That the date stamped upon the ticket indicates that it is *not* an *expired* ticket out of date.
2. That the name of the station on the ticket when it is collected, is the name of the station at which the passenger is alighting (except in special cases).
3. That the passenger is journeying the correct route to reach the station indicated upon the ticket.
4. That the passenger is riding in the right class as warranted by the ticket.
5. That in the case of periodical tickets they are not out of date but still in force.

After tickets have been collected they have to be examined and manipulated.

1. They should be immediately nipped, and thereby cancelled, so as to prevent their further use, and then they should be put away in some safe place, preferably under lock and key.

Many cases of fraud have occurred by "collected" tickets unnipped being sent back by next train to the issuing station and again issued there the same day, thus two fares have been paid by the public on the one ticket, the clerks working in collusion dividing the loot.

2. All tickets collected for the day have to be sent to the audit office the following day with a statement of the number. They must, however, be sorted and sent in station order, class order and progressive number order, the highest number being on the top. Each bundle should be tied up separately. The object is to sort the different kinds of tickets as nearly as possible into the same order as they are placed in when sent to the station for sale.

The groundwork of the check upon the honesty of booking clerks is the progressive numbering and collection of the tickets—(1), a ticket without a number would (errors excepted) indicate fraud; (2), two tickets of one number would, in like manner, indicate fraud; (3), tickets sold out of progressive number may mean embezzlement, because by doing so a booking clerk evades accounting for the price of the ticket on the day of issue. All irregularities of this or any other kind should be at once reported to the audit office. Communications between stations relating to irregularities in the issue of tickets, except when exclusively in the interests of passengers, is objectionable, as they are viewed by the audit office with suspicion. The object of a statement of the numbers of the tickets accompanying the collected tickets to the audit office is to enable the issuing station's return of the particular numbers of tickets sold being compared with the particular numbers of the tickets collected from the passengers. When tickets are collected at other than the destination station which is printed upon them, the tickets are usually sent on to the destination station to forward to the audit office.

The following comprise the principal description of excess fares that arise:—

1. Passengers unable to produce tickets.
2. Passengers travelling beyond the station authorised by their tickets.
3. Passengers travelling in a higher class carriage than warranted by their tickets.
4. Children over three years of age travelling without tickets.
5. Children over twelve years of age travelling upon half tickets.
6. Passengers travelling with tickets out of date.
7. Passengers holding periodical tickets travelling beyond the limit authorised by their tickets.
8. Passengers with excursion tickets travelling in ordinary trains not warranted by the conditions attached to their tickets.
9. Passengers travelling in quick trains by which their tickets are not available.
10. Passengers leaving trains short of the destination station on the ticket, that is, booking to a station farther than the station to which they intend to travel, to obtain the advantage of a lower fare. (See Legal Questions.)
11. Passengers travelling by one company's route while holding tickets available by another company's route. To be adjusted by the issue of a wrong route form to the Clearing House, so that a share of the fare may be actually given to the company carrying the passenger.

PASSENGERS' LUGGAGE.

Present plan—American plan—passengers to produce ticket before luggage is labelled—weighing passengers' luggage—luggage to be labelled to same station as passenger is booked to—public objection to pay for excess luggage—special trains for luggage—articles not passengers' luggage—carriage rugs going in guard's van—luggage in passenger's own charge—"whistling commercial's" stories of tips—exhibition of excess luggage rates at weighing scale—sending excess luggage by goods train—packing luggage in guard's van—luggage on roofs of carriages not allowed—delivery of luggage to passengers—checking excess luggage at arrival stations—porters carrying luggage outside stations—searching carriages for lost property—unclaimed luggage—finder of lost property to sign book.

Unclaimed luggage at intermediate stations—opening—Clearing House registering—describing unclaimed luggage—unclaimed luggage on hand twelve hours—lost luggage and finding it—information necessary to facilitate search—using telegraph—dogs in boxes without way bill—left luggage, company not insurers—issue of ticket, and marking number on packages—explosives deposited as left luggage—depositors to open packages—depositor's home address—periodical stock-taking of packages on hand—packages from shops to wait passengers—loading military luggage.

WE have thought it better to devote a separate chapter to the luggage question, as there is much to be said on the matter. Under "departure platform" the acceptance of the luggage was described up to the point when it had been trucked to the labelling place.

For many years we have considered our English way of dealing with luggage to be a mistake, and the time will come, we think, when it must be improved. The present manner of treating passengers' luggage is quite at variance with our English character, because we pride ourselves that as Englishmen we are thorough and certain in all our business arrangements. Now, in dealing with passengers' luggage there is neither thoroughness nor certainty. There is no evidence beyond the possible recollection of a porter, whether a particular box was received, nor is there any better evidence as to whether a box was delivered to a reputed owner. The present system has undoubtedly grown out of the old coach system; but with the comparatively limited quantity of luggage one coach carried, and that in some measure the luggage was under the eye of the owner during the journey, the circumstances are very different to the present railway conveyance.

In Canada and the United States of America the luggage system upon large lines is very elaborate. Each line has a general baggage agent who, in position, is like a divisional manager in this country. He supervises all the baggage arrangements as a distinct department of the service. He has baggage vans and train baggage men upon every passenger train, and there are baggage men at all the large stations, and thus the work connected with passengers' luggage embraces a dis-

tinct inner circle of the system of the line. The train baggage men make their reports and send their returns direct to the general baggage agent, and obtain their stores and stationery from him, but it does not appear that he appoints the men. The station baggage men have to obey the orders of the general baggage agent, but are controlled by the divisional superintendents. Receipts are given at stations by either the station baggage man or one of the station staff to the train baggage man for the numbers on each piece of baggage put out at each station. The train baggage man, in like manner, gives receipts for pieces of baggage he receives into his van at each station. If baggage is sent from one station to another unaccompanied by any passenger, the duplicate check is enclosed in a letter to the station agent at the receiving station. Passengers, to prevent errors, are encouraged to compare the numbers on their duplicate checks with the parent checks on the baggage. If a passenger loses his duplicate check he is put upon proof as to his ownership of the luggage. He must, before the packages are opened, give a list of the principal contents of the packages, produce the key, sign an indemnity form, and pay two shillings for the lost check. If a package has a bundle tied to it, the company decline to attach a check, and generally object to put a check upon two packages tied together. At small stations where there are no baggage men, the packages of luggage are handed to the train baggage man at the door of the van, and he attaches the check and gives the passenger the duplicate.

We are much indebted to Mr. Wainwright, the assistant general manager of the Grand Trunk Railway of Canada, and to Mr. Jno. N. Abbott, the general passenger agent (chief superintendent of the line) of the New York, Lake Erie and Western Railroad Company for information, from which the following description of the American baggage system is condensed.

To every package of luggage when received by the railway company is attached a brass check *with a number* punched into the metal. This brass check is permanently attached to a short leather strap, and at the top of the strap is a slit. The strap is put through the handle of a trunk and fixed on to it by a loop being made in the strap, the brass check being slipped through the slit in the leather and pulled tight. There is a second brass check bearing *the same number*, being a duplicate, and this duplicate check is given to the passenger as a voucher. The duplicate check has a slit or hole through it, and when not in use it is threaded on to the leather strap; thus when the checks are out of use they are both kept together, one loose on the strap and the other permanently fixed. The Americans put no paper labels on the luggage as we do.

This describes the plan in its general form, but in detail there are variations, three of which we are able to describe. Seeing that the luggage is not labelled with the name of the station, it may be said, how is the train baggage man to know at what station to put it out? The following three plans illustrate this process:—

- (1.) Each station is known by a number, and this station number is chalked upon the packages at the sending station.

- (2.) Thomas' Patent Brass Checks carry a card, and this card either has the name of a station printed upon it, or has a blank card upon which the name of some station can be written.
- (3.) Between certain large stations a special kind of brass check *with the names of the stations thereon* is used, which is reversible, one side of the check being used for the "up" and the other for the "down" journey.

The Thomas' Patent Brass Luggage Check was patented in 1867, and therefore has been many years in use. This check measures $2\frac{1}{2}$ by $1\frac{1}{2}$ inches. It has two slits or holes, one at the top and one at the bottom, of a size to be threaded on to the leather strap. The leather strap is permanently fastened to the bottom slit and can be passed up the back of the check, and then pushed through the top slit from the back to the front. The two sides of the brass check are provided with turned-up edges to form two grooves like those in a date card case. A small card, about the thickness of an ordinary passenger's ticket, measuring $1\frac{1}{2}$ inches square, can be slipped into these side grooves, and thus fastened and made visible in the front of the brass check. This small card also has a slit in it at the top, which corresponds with the top slit in the brass check. When put into use the card is slipped between the grooves thus covering the front of the brass check, and the leather strap is passed from the back of the check through both the slits in the brass check and the card, and hence the card is securely fixed by this strap beyond the possibility of falling out. Underneath where the card extends on the brass check, the name of the railway and a *number* is punched into the metal. Two kinds of cards are in use—(1), cards bearing the printed names of principal stations to which luggage is sent daily; (2), plain cards, upon which the name of a small road-side station can be written. Half a dozen spare plain cards can be threaded upon the strap by the aid of the slits in them, so that the baggage check, at whatever station it may get to, can be used between any station and any other station on the parent line. There is also the customary loose duplicate brass check for the passenger bearing the duplicate number and the name of the railway.

The reversible brass check usable only between two particular stations is like in form to Thomas' Patent Check, but without a card in front. On one side of a reversible check now before us is punched "*via Mexico, 249, Humboldt to New York, via L. L. & G.—N. M.—C. & A.—M. G.—Gt. W. & Erie R. Rs.*" On the other side is "*New York to Humboldt*" with the same initials of the companies reversed. The strap fastened to the bottom slit can be threaded through the top slit, either over the one side or the other, thus covering the lettering for the "up" trip when the check is being used for the "down" trip and *vice versa*. The duplicate check given to the passenger shows lettering only on one side as follows:—"Humboldt and New York, 249, *via Mexico*," and the same railway companies' initials as before quoted.

In contrasting the two systems of dealing with luggage in America and England, it is evident that in America the chief aim is to identify

the passenger with his luggage, and the luggage with the passenger. This probably is done with as much certainty as, humanly speaking, is possible. The Americans, however, meet with a stumbling-block in identifying the station at which the luggage is to be put out. The chalking of a number upon packages is manifestly an imperfect makeshift plan. The use of special checks, limited to two stations, is a plan circumscribed to a limited area. The use of the Thomas' Patent Check, which takes a card, is practically using a label without the inconvenience of using paste or gum. The cases for keeping and the selection of the printed cards is the same as with us in using the labels, and the writing upon the blank card the name of a station is the same as with us in writing the name of a station upon a blank label, to be attached by paste or gum.

Where the Americans find a difficulty, the English system is comparatively perfect; but on the other hand, where the American plan identifies the passenger with his luggage, the English plan is an absolute failure.

The great point to be gained in this country is to identify the owner of the luggage at the arrival station, and this may be done by a less elaborate plan than that in use in America.

We should propose to introduce the brass or other metal check and the leather strap with the duplicate, and to punch only a *number with the name of the company* upon the check. The practice of labelling the luggage for the stations to continue as at present. The plan would then amount to the simple one in use in theatres and museums, where umbrellas and coats, lodged at the cloak room, are identified by a duplicate number. The staff at very large stations might have to be slightly increased to carry this out, but at small stations the present porters attending to the luggage could do the work. It would make no difference to the guards—it would certainly give them no relief, but at the same time it would give them no additional work.

Probably we shall be told, "Yes, it is all very well when you have a handle or the cord of a box to which to attach the strap; but how would you manage when the luggage is a bundle?" Well, if nothing better could be done, we would overcome that difficulty by making a hole through the wrappering of the bundle and push the strap through. A perfectly plain deal box, uncorded and without handles, although an exceptional package as passengers' luggage, would be troublesome, but we would overcome that difficulty by giving the labelling porter a small hammer and some long tacks, and at the time of labelling the box he could put a couple of tacks through the leather strap, and tack it on to the box.

By continuing the pasted labels showing the destination station, the straps and checks bearing only numbers would be common for use by any station to any other station, though, like waggons or carriages, at times it might be necessary to have them collected and re-distributed to stations where most required.

The course that things would take then would be that the luggage when labelled at the departure station would be also "checked," and the passenger would receive a duplicate metal check for each

package. At the arrival station the luggage would only be delivered up to the person giving in exchange the duplicate metal check. Any packages not "checked" would not be in the company's charge, but in that of the passenger; and this would strengthen a company's non-liability at law in regard to packages unchecked. Less packages would go astray and become unclaimed—less inspectors and searchers for lost luggage would be required—less travelling expenses incurred, and also less correspondence and telegrams about lost luggage would be necessary.

Porters trucking luggage from the street entrance should be trained to first take the luggage to the labelling place and not direct to the guard's van, because by so doing the scrutiny of the excess luggage porter may be evaded.

Luggage should be closely scrutinised to see that no uncanceled old labels or address cards are visible. Commercial travellers sometimes make two or three short journeys in a day, and fresh looking "old labels" left on luggage may cause it to be misssent.

The luggage having then been trucked to the labelling place where usually the weigh bridge is situated, the following questions should engage the attention of the excess luggage porter before attaching labels to the packages:—

- (1.) The production by the passenger of his ticket to prove that he is a booked passenger, and to prove the class ticket he has purchased, and that he holds a ticket for the station to which he wishes the luggage labelled. This, in a measure, is the identification of the passenger as the probable owner of *some* packages. If the packages pointed out by the passenger are all addressed in the one name to the one station, that is further evidence.
- (2.) Whether the luggage has the appearance either from its weight or quantity of exceeding the weight allowed to the class by which the passenger is travelling, and if so, the luggage should be weighed, and the excess, if any, charged.

In a general way luggage should be labelled to the station to which a passenger is booked, because in labelling luggage to another station there is a danger either of systematic robbery or of the luggage going astray. But there are exceptions, such, for instance, as where the passenger cannot be booked through to the station to which he is going, yet his luggage can either be labelled through or to a junction beyond the station to which he is booked. Where there is no suspicion of fraud the wishes of the passenger should be carried out as far as possible, consistent with due caution and the special rules in relation to the matter.

Paying for excess weight of passengers' luggage is quite as obnoxious to some persons as paying the income tax. The public, and especially commercial travellers, have brought their minds to such a state of tension, that to evade the charge for excess luggage is in the eyes of many a meritorious deception. It is considered that honesty need not necessarily be a reciprocal virtue between a passenger and a railway company, but should be confined only to the acts of the

company towards the passenger. It is true that a few tons additional weight upon a train is not material in respect to the traction cost, but it is very material in other respects. It is not greed that makes railway companies strict in demanding remuneration for carrying excess luggage over and beyond the weight stipulated in each company's special Act of Parliament. It is a demand rendered positively necessary to keep down what would extend to an alarming additional weight of luggage, if passengers acquire the habit of carrying any weight of luggage they like without charge. Even under the present state of things, far too much luggage is carried to enable the trains on many occasions to keep time. In nine cases out of ten, delays to trains are caused by the additional work at intermediate stations, incidental to the unloading and loading of luggage; and an increased growth of excess luggage, whether carried for money or free, would result in an increase of the delays and necessarily slower journeys. If passengers could be induced to send their heavy luggage to the railway stations early of a morning, passenger luggage trains might be run in advance of the passenger trains, and then a traveller would on arrival find his luggage all ready at his station or at his hotel. The luggage metal checks would facilitate this arrangement.

A definition of the articles classifiable as personal luggage, that a railway is compelled to carry, is mentioned under the heading of Legal Questions. A passenger can compel a company to label and put into the guard's van, rugs and small packages, and these, together with other articles a passenger takes into his own charge, are also treated of, under Legal Questions.

The question of railway porters accepting "tips" and "bribes" from the public has been mentioned in the Introductory chapter, and therefore it is not necessary to repeat similar remarks here. As bearing upon the matter, however, we give two stories here from a very interesting little book,* written by a commercial traveller, and which has passed through five editions. The author writes under the *nom de plume* of the "Whistling Commercial." We once accidentally met this gentleman as a fellow traveller at Penrith, and found him to be a veritable commercial resident in London, and his *nom de plume* is no misnomer, for he whistled airs in a surprising manner and was a most agreeable companion. He appeared to have no suspicion that we were connected with railways, and we had considerable quiet fun in listening to his opinions upon railway matters from the standpoint of a commercial traveller. "The Road" pronounces as follows:—

"Here are the signs by which you may know the porters (railway) who have acquired the act of 'palming' in all its branches—

"1st. If you see a porter coming *very* close to the owner of luggage and bending over the cases, that's one.

"2nd. If you see a porter standing on a carriage step and loudly announcing, as he tips his cap, that 'he's put 'em all in the last van for Blanktown,' that's another.

*From "The Road: leaves from the Sketch Book of a Commercial Traveller."—W. Walker & Sons, Otley.

"3rd. If you see one lifting up case after case, as if to feel their weight, and then looking at you—get sixpence ready.

"4th. If you mean visiting the cloak room and your porter straps two light packages together, he is saving twopence, *for himself*.

"5th. If you elicit any information from an official, whether with blue coat or dark green jacket, and that official is at all agreeable, you may find immediate use for a fourpenny bit.

"6th. Finally, if anybody does anything for you on a railway platform, get ready any spare coin."

These signs refer to gratuities, but "The Road" also contains some anecdotes, and we cull the two following as not improbable—

"THE PROLOGUE.—Traveller approaches and whispers mysteriously in the ear of Falstaff (excess luggage porter)—'Hem! I've a bottle in my pocket for you—mind your business!'

"Here the bottle changed owners and landed safely in a capacious pocket which Falstaff's tailor no doubt made expressly for such gifts.

"'All right, sur,' said the fat porter in an undertone. Then he bawled loudly—'Where did you say your baggage was for, sur?' 'H—, sur.' 'All right, sur.'

"They were duly and most carefully labelled and put in the van. The traveller went on his way rejoicing—we may even say chuckling. Now comes

"THE PLAY.—Falstaff when the platform is clear and the porters' room empty at once retires there, hugging his black friend as a mother would her favourite child. Arrived there he pulls out a pocket corkscrew, carefully inserts it through the red wax into the cork, and pulls it out with a 'flop' of the true ring. Before partaking, he eyes the nice label on the outside, a guarantee, a certificate of the genuine contents. He applies the narrow orifice—there was a gurgle, but not of very long duration.

"It was water of the purest description, and that was a liquid Falstaff hated.

"It always gave him the stomachache, he said, and it was his firm opinion that water was only sent into the world to qualify alcoholic liquors; and such being the case, he considered there was a great deal too much of it in the world; the surface of the globe being mostly water and a very much smaller portion land.

"Why, he regarded the arrangement as a decided take-in.

"In his opinion it ought to have been three parts whisky and one of water.

"Given a Noah's Ark for him to dwell in, and there you have Falstaff's unrealised paradise. Politeness forbids that we put down what Falstaff said when he discovered how he had been done. In Hades they are not particular with their expressions—we are.

"As to Falstaff, he only regretted that the English language was not strong enough to express his sentiments of his thirst for vengeance; albeit our mother-tongue is not wanting in blackguardism, slang, and profane words.

" 'Wait till the fellow comes again!' he muttered through his teeth

" Well the fellow *did* come again, and this introduces us to

" THE EPILOGUE.—' Oh! you're here again, are you? I'll make you pay for your swindle! I'll weigh up every ounce you have, you villain! See if I don't!' growled Falstaff.

" 'Do it at your peril, sir! I have a witness that you took that last bottle as a bribe. I can also prove that you have taken bribes in other cases!'

" 'What the dooce is that to you?'

" 'If you ever weigh me up again, consider your situation as lost: for the moment you do, I'll lose a train in order that I may expose you to the company!'

" Well, Falstaff was check-mated, and he had to do *as he was ordered* by this Commercial, in future. But he takes his vengeance on the rest of us. We have before hinted that 'winking' is a language of the eye which railway porters understand to perfection. How much 'excess' is carried free for a glass of whisky in the refreshment rooms, probably the various companies would like to know.

" On one occasion an excess porter said to the Whistling Commercial—

" 'I see as your luggage is overweight, sir.'

" 'Ah! your visionary powers are far too acute for me, my friend.'

" 'Sir,' with a grunt like a pig.

" 'I say you can *see* too well for me.'

" 'Ah! to be sure, sir. I take you—'

" 'Could you see as well now, if you had sixpence over one eye?'

" 'Well, I don't know, sir; but I'm darned well sure as I couldn't see at all if I'd another over t'other!'

" We need hardly say (says W. C.) that we paid for the witty reply, not for his blindness, of course."

The list of rates for excess luggage should be exhibited near the weigh bridge, so that passengers may see and know at what rate the charge is made. Many excess luggage porters not being expert calculators, a ready reckoner suitable for the purpose should be given them.

When, under exceptional circumstances, a passenger has not the money to pay the charge on the excess weight, the transaction then becomes a parcels one, and the amount is entered on a parcels way bill "to pay," and delivery withheld by the parcels clerk at the arrival station until the amount of excess is first paid.

Persons often thoughtlessly bring excess luggage with them to the station that might go per goods train at less cost. In the hurry of the moment a passenger cannot leave part of his luggage behind at the station and is therefore forced to pay the excess. To facilitate passengers in such cases, when they do not wish to take on the extra luggage, the excess porter might have a printed goods consignment book and accept the excess packages to travel by goods train and issue a receipt for same. This would diminish excess luggage by passenger trains, and a goods collecting cart could call at the passenger station every afternoon and take such packages to the goods shed. The

collection would be covered by the carted goods rate the same as if the packages had been collected from a trader's warehouse.

The sorting and clubbing together of the luggage into station order is sometimes very troublesome, because passengers continue to arrive up to the last minute the train is due to start and the destination of their luggage may be any station. Unless the luggage is systematically packed in a guard's van there will be delay to the train in getting out particular packages at intermediate stations, and some packages may be over-carried. Luggage should be packed in a van as near as possible in the order that the luggage for the farthest station should be loaded first and be at the back, and luggage for the near stations loaded last. By adopting this plan, as far as possible, the luggage first wanted will be near to the van door and easily and quickly put out. As far as time and circumstances will permit the luggage for the near stations should be held back and allowed to remain upon the platform hand trucks until the last few minutes of the train starting.

The separate "cupboards" in particular carriages on some through trains, used for luggage for particular branches or large terminal stations, saves much confusion and pressure within a guard's van; but still there will always be odd packages for sundry stations that cannot be met by the "cupboard" system. The "cupboards," however, can be increased when necessary, and in that way the sundry luggage in the van can be reduced to a workable quantity.

The Board of Trade recommend that no luggage should be loaded upon carriage roofs. The loading of military baggage should be done by the soldiers themselves and the baggage placed in separate waggons or vehicles apart from other kind of baggage. A sergeant's guard should accompany the passenger or goods train by which the baggage is sent, so that the baggage may never be out of the charge of the military, and thereby prevent any claims being fastened upon the company for baggage deficient.

When a train arrives at a station the passengers who have alighted naturally make a rush to the guard's van to obtain their luggage. At busy stations it is therefore necessary to have a movable barrier upon wheels, so that it can at once be placed before the guard's van, and a guarded space made available in which to sort the luggage. It is necessary to keep passengers off, because the men could not be expected to unload the luggage and hand it over to passengers, when the passengers crowd in among the porters and the luggage, and thereby impede the work. Porters with their minds on "tips" keep outside the barrier to carry the packages to the cabs, and often there are not sufficient men inside the barrier to hand the packages over, and passengers are consequently kept waiting and shouting and pointing to their luggage. Certain porters, taking week in turn, should be made to remain wholly inside the barrier to hand the luggage over and not allowed to carry any luggage to cabs until all the packages shall have first been delivered to the passengers. When a train brings in a great quantity of luggage, the full staff of porters and other men about the station should be quickly put to the work, because a few minutes' delay is sometimes very serious to a passenger who

wants to catch another train at another company's station in the same town.

A good look-out should be kept for passengers smuggling excess luggage without having paid for same at the starting station. If a receipt for the excess cannot be produced, the luggage should be weighed and the excess amount demanded or delivery of the luggage withheld. To counteract "tips" being given to the excess luggage porter at the starting station, small premiums might be given to the ordinary porters at the arrival station for all excess luggage detected by them, say ten per cent. on the excess, with a minimum of sixpence. This would very soon have a magical effect in stopping the smuggling of excess luggage, and would cut the ground from under the feet of the excess porters at the starting stations in taking "tips."

Porters should not be allowed to carry luggage beyond the station gate, to hotels or private houses, because during the time they are absent, their ordinary duties are neglected and most likely the remuneration they may earn would be spent in drink, which is a further evil. This work should be left to the badge porters or badge porter boys as previously mentioned.

At terminal stations the head porter should look into the guard's van and see that no packages have been left behind there, either from inadvertence or with an improper object.

UNCLAIMED LUGGAGE—(LOST PROPERTY).—Immediately the passengers at junctions and terminal stations are clear of the carriages, it should be the duty of *two* particularly trustworthy honest men *going together*, to search all the carriages on the train before they are shunted from the arrival platform. These men should search both on the seats, under the seats, and in the racks for lost property. If any is found it should be duly delivered up to the clerk of the lost property office, and entered by him in his book with the full particulars, and put carefully aside with a label attached. The finder of the lost property should see that the entry is made in the book, and should also sign his name in proof thereof and as being the finder. It is important that after the lost property is placed in the lost property office no portion of it should subsequently go astray, and it is equally important that no portion should go astray between the place of finding and the office, and that the finder at any future date should be identifiable. These searchers should also examine dog boxes in case of dogs arriving uninvoiced, as they might, if quiet dogs, be overlooked and starved to death.

Articles of special value found, such as money or jewellery, should be taken to the station agent. The dog boxes, luggage cupboards, horse boxes, and luggage vans should also be searched by the same two men. Strange articles at times become lost property. In India we were once telegraphed that three quarters of a lac of rupees (seven thousand five hundred pounds) in bags, had been found in a third class carriage at Bhosawel station and remained unclaimed. It appeared afterwards that the Bheel guard in charge of it had alighted from the train at a stopping station for some necessary purpose and

had been left behind. On another occasion a tiger, chained in a waggon, became lost property, but no person proffered 'o take it to the lost property office. It was, however, subsequently claimed.

Unclaimed property, luggage, parcels, &c., found at intermediate stations when addressed or labelled should be sent at once to the station to which addressed or labelled, unless the addresses or labels appear to be old ones used on a previous journey. In this latter case, however, the information may sometimes be used to trace the owner. Unclaimed property found unaddressed or unlabelled (unless when perishable) and not claimed after a week, may be opened with a view of tracing by letters, cards or linen marks the name or address of the owner. All packages opened for this purpose should be opened in the presence of two witnesses, and an inventory made of the contents, and the package securely re-fastened and put into a locked place. Locks of course should not be forced, but a professional locksmith called in to pick the lock. These suggestions are contingent upon standing orders from the district officer, who should be advised of the finding of all packages.

An unclaimed luggage registry is kept at the Railway Clearing House, London and Dublin, and the Clearing House rules provide for returns being sent of all unclaimed luggage either when discovered on hand or received from another station. It is important that these returns should be despatched quickly after the finding, and that the description of the package should be accurately given.

Portmanteaus—material made of, and colour.

Boxes—material, colour, if corded, special features.

Bags—whether carpet, leather, or otherwise.

Baskets—colour and shape.

Bundles—colour and material of covering.

Parcels—describe colour and material covering.

Umbrellas and Parasols—colour and maker's name inside, or owner's name on handle.

Rugs—colour and material.

Books—titles and owner's name inside.

Cases—colour, whether tin, wood or leather.

Hats—kind and maker's name, and owner's name in lining, if any.

Soldiers' baggage—letters and numbers on same.

When easily ascertainable from the packages being unlocked, the character of the contents can be given.

On some lines if the unclaimed property remains unclaimed for twelve hours, it is then sent from the intermediate station to a district or central lost property office and booked as a parcel. This plan relieves the station agent of any further care or responsibility.

LOST LUGGAGE.—This is the converse side of the unclaimed luggage question, because in this case the passenger has lost his luggage, and discovers the fact on arrival at his destination station, and it then devolves upon the agent to try and find it. No specific advice can be given in treating such cases—it all depends upon the acumen of the agent and his familiarity with the handling and transfer of the luggage during its journey on the train at the different junctions and

wants to catch another
same town.

A good receipt for
luggage with
weighed
withheld
porter
or
to

As to the facts of its own peculiar facts. The following should be obtained from the passenger
The London and North Western
are very complete and are therefore given,
Full name and address of passenger, or of owner of lost
property, - - - - - }
Date of journey and train, - - - - - }

Stations between which passenger travelled; also say
whether the journey was a continuous one, or where
the change of trains took place; if the journey
was broken at any intermediate place, mention the
station, - - - - - }

Route, - - - - - }

Class of ticket; where purchased; from and to what
stations available, - - - - - }

Total number of packages of luggage, and who accompanied
them, - - - - - }

Full description of missing package:—state size, shape,
material, colour, if covered, colour of cover, if locked,
roped or strapped, and any other distinguishing
features, - - - - - }

Address on missing luggage, how affixed, and if any old
address upon it, - - - - - }

State whether owner saw the package labelled with the
company's printed label, to what station labelled, and
if there was any old label upon it, - - - - - }

State if the owner saw the missing luggage placed in the
guard's van, or if it accompanied the passenger in the
carriage in which the journey was made, or if it was
merely given to a porter at the station to take to
the train, and whether such porter was a company's
porter, - - - - - }

State when and where the missing luggage was last seen,
whether it was seen when changing trains, and where
it was first missed, - - - - - }

Say at what station, and when, particulars of the loss were
given to the company's officials, - - - - - }

State exact time owner arrived at the station where the }
journey commenced, - - - - - }

State address at which owner was staying previous to the }
journey, and by what means the luggage was }
conveyed to the station, - - - - - }

Fill up the form on the other side with particulars of the }
contents of the missing package, and their value, - }

The agent must create a summary of probabilities as to the stations where the luggage may have gone astray, and write or telegraph to these stations. The Clearing House Lost Luggage Registry Office should be advised, and also all district centres to which unclaimed luggage is usually sent. It is permissible to use the telegraph if the fault of the luggage having gone astray appears to rest with the company's servants, but if the fault distinctly rests with the passenger, he is usually expected to pay for the telegrams. In doubtful cases it is better to telegraph on behalf of the company. Where the value of the package is considerable, or a robbery is suspected, the district officer's searcher or the railway police superintendent should be set to work at once to make a personal investigation. Many of the remarks in reference to Lost Goods (which see) are also applicable to Lost Luggage.

LEFT LUGGAGE.—The old term of cloak room is now dying out, and that of left luggage office is taking its place. Probably in the earlier days of railways, rugs and cloaks were the articles principally deposited, but the convenience of having a place of deposit has led to a growth of additional business in the form of luggage and heavy packages.

The business incidental to a left luggage office is entirely outside the responsibility of a carrier. Every railway company, while necessarily a carrier, is very often in addition a warehouseman. The legal liability attached to a company opening a left luggage office is simply that of a *special* warehouseman, and the warehouseman's liability differs very materially from that of the carrier.

The conditions on the left luggage ticket are binding conditions that constitute the contract between the company and the person who deposits the luggage. The company do not insure the safety of the luggage against all risks, while if the transaction was of a carrying nature they would be bound, at common law, to do so.

The routine of the work is very simple and is usually carried on by an old foreman porter who is somewhat past active service, but who should be guaranteed. The ticket given to the depositor is a receipt for the twopence per package fee, and is also a voucher, upon presentation of which, the package is given up again to the depositor or his agent. The number on the ticket is chalked or marked upon the package, and the package is put away on a shelf with other packages in progressive order, so that it may be easily found and identified on demand. There

should be plenty of room in a left luggage office sufficient to accommodate the average number of packages deposited there by the public.

In these days of dynamitards, when explosives are set free by clockwork contrivances at fixed hours, a close scrutiny of both the package and the depositor is necessary. The scrutiny of the personality of the depositor is of far greater importance than that of the outside of the package, because the most harmless looking package may cover the most diabolical villainy. At all Metropolitan and other large stations, the depositor should be required to open his package and submit the contents to a formal examination, the same as is the practice when luggage is being passed through the hands of Custom House officers. It is also a wise plan to require each depositor to give his or her home address, and put it upon the block of the left luggage ticket book—of course dynamitards could readily give false addresses, but the information would be of service when packages may remain lying on hand several weeks. An advice might then be sent to the depositor's home address, and packages that have been overlooked or forgotten may thus be cleared off. There should be periodical stock taking of packages on hand over a certain time, either a fortnight or a month, and steps taken to get them removed by writing to the depositor. If the depositor's home address is not known, the package might be opened with a view of discovering it. A left luggage office affords great facility in large towns for getting rid of articles that might afford evidence of crime, and therefore no package should remain for a long period on hand unclaimed without being submitted to an examination.

When packages are sent from shopkeepers to the left luggage office to wait passengers applying for them, the ticket system is not applicable. The practice then is to enter the packages into a deposit book with sender's and consignee's name, and when the passenger asks for them and gives the name of the sender, delivery is made, taking the consignee's signature and the booking fee,

PARCELS.

Accommodation and fittings of parcels office—booking fees—receipts to senders for parcels—receipts for money for prepaid parcels—weighing—sender's name and address—hour received—"paid" and "to pay" tickets on parcels—making way bills—checking into van by guard—checking way bills with receiving book—parcels delivered late—copies of way bills—making charges—way bills to accompany parcels in all cases—taking parcels from arriving trains—checking parcels with way bills and noting discrepancies—sorting parcels for districts of town—loading and checking parcels into delivery vans—examining delivery sheets for consignees' signatures—parcels "till called for"—parcel labels with amount of carriage written thereon—refused parcels and perishables—delivery beyond boundary—value of parcels—parcels accounts—similarity of parcels to goods accounts—distinct trains for parcels—way bills form basis of accounts—abstracting and making summaries—undercharges—overcharges.

PARCELS OUTWARDS.—The process of dealing with parcels traffic is very similar to that of dealing with goods traffic, the parcels being goods traffic in miniature.

The great essential is to have plenty of room in the parcels office, and a sufficiency of boarded-off compartments or racks ranged along the side of the office, like wine bins, for sorting the parcels into station order, for the different trains. Each rack should be labelled for a large town or district. A number of parcel hand barrows, like boxes on wheels, are also necessary for conveying the parcels to and from the platforms, to be loaded into or unloaded from the guard's vans.

In the old coaching days it was customary for the sender to pay twopence each parcel for booking. This practice may have arisen from the senders who delivered parcels at coach offices being usually unable to write consignment notes, and hence the parcels were booked at the moment of delivery, as a record of their receipt. Possibly, also, the booking stood in lieu of the issue of a receipt to the sender for the parcel. But, however it may have been, no consignment note is now required when carriers accept ordinary parcels for conveyance, while the twopence booking fee is almost a thing of the past. In London the twopence booking fee helped to support receiving houses at convenient places, by persons who acted as collecting agents for the old coach carriers, and the coaches stopped at such receiving houses and took up the parcels. Sometimes the receiving house keeper was the legal representative of the carrier, and at other times he was independent and, as it were, a shopkeeper making himself a convenience for the public.

The accommodation necessary for parcels depends upon the extent of the business. At small stations the work is done in the booking offices, while at medium sized stations a separate office is required, and

at large stations an outwards office and an inwards office become necessary. Where only one office is available there should be a clearly defined division for inwards and outwards parcels, or confusion and delay will arise. Where a separate office is required there should be a convenient and sufficiently long counter put across the office to keep the public outside, and afford a suitable place upon which to put the parcels when the act of delivery takes place from the public to the company. Convenient to this counter, on the office side, should be a good scale always well balanced. This scale should be within the view of the sender when standing at the counter, that he may see the process of weighing.

The usual practice is to give no receipts for parcels unless the sender brings a written note to the station, and requests that it may be signed.

Before parcels are taken from messengers, each parcel should be examined and shaken to see that it is in good condition and nothing inside broken. It should also be closely scrutinised to see that the words "carriage paid" are not written upon the parcel or the address card, unless the carriage is really paid. This is especially important when a parcel cannot be booked through to its final destination. If the carriage of the parcel is paid for part of the journey, then the remark should be qualified as "carriage paid to——." For instance, a parcel for Brighton from the North, "carriage paid to London."

Parcels addressed for places beyond the limits of the United Kingdom must be received with great caution, and on no account accepted unless accompanied by a declaration of the contents and value which is required by the customs authorities. Unless this is done the parcel will be detained at the shipping port, and the sending station has then increased labour in obtaining from sender the necessary declaration.

Parcels containing perishable goods should not be accepted on Saturday evenings or on the eve of public holidays, particularly when for places on branch lines, unless it is certain that they can be carried without the chance of a day's delay.

When the carriage of parcels is prepaid a receipt for the amount should always be given on a company's printed form, unless when the sender brings a receipt form. It is very objectionable for clerks to receive money without passing a receipt for same.

Parcels clerks and porters usually work in pairs—the porter "calls off" the address upon the parcel and the weight according to the scale, and the clerk makes the entry in the receiving book, which is the first entry made. In all cases the sender's name and address should be shown in the receiving book, and the time of the day the parcel was accepted. The amount of carriage is in some cases marked in coloured pencil upon the parcel at the forwarding station, and sometimes at the receiving station.

At the time the clerk makes the entry in the receiving book, he has before him two kinds of coloured printed labels, one colour with the sending station and the word "paid" printed upon it, and the other colour with the sending station and the word "to pay" upon it. These

labels are ready gummed, and one is fixed upon each parcel according as the carriage may be prepaid or charged forward.

After this is done the parcel is put away into a rack according to the destination. Shortly before a train is due to start the train porter sorts the parcels out of the rack into station order, and then while putting them into the parcels barrow calls off the addresses, and the way bill clerk makes an entry for each parcel on the parcels way bills, which accompany the parcels on the journey. The train porter then takes the barrow of parcels and the way bills to the guard's van at the platform. All the parcels at terminal stations should be at the guard's van ten to fifteen minutes before the train starts. The train porter then gives the guard the way bills which have been sorted into A B C station order, and as the porter calls off the addresses on the parcels and puts them on to the floor of the van, the guard checks the entries on the way bills and initials the bills.

Stowing parcels in office racks, barrows, guards' vans and delivery vans is of great importance. The remarks under Loading Goods into Waggon also applies here. Frail parcels easily crushed should be carefully reserved, to be put upon the top of other parcels able to support their weight.

Before the way bills leave the parcels office it is a good plan to call off the entries and check them with the corresponding entries in the receiving book. Clerks at some stations make the way bills from the receiving book, which, in times of pressure, may be done, but by doing so the check is sacrificed, and if the receiving book entry contains any error, that error is carried forward on to the way bills.

In some cases the parcels, instead of being put into the racks, are sorted direct into barrows for each train.

A margin of time is usually fixed before a train starts, and parcels if not delivered before this fixed time are shut out from being forwarded until the next train. It is hardly necessary to keep a sender's man waiting while parcels are being made up for a train, because he can be told that he is too late, and the parcel can be accepted and marked "late" in the receiving book.

The clerk writes the way bill entries with a hard pencil, using manifold copying paper, so that a duplicate copy is taken as a record for abstract purposes. In charging carriage upon parcels there is no necessity to classify them into different classes according to their contents, because the charges are alike for most kinds of goods at a fixed rate per pound, according to distance, some frail parcels being charged extra. The way bill clerk should have the rates list before him on the desk, and also a list of the mileage from his station to all other stations.

Frequently parcels from large stations are bundled in a heap into the guard's van with the way bills too late for the guard to check them and he has then to check them after his train has started, when mistakes cannot be readily corrected. On no account should parcels be taken out of a parcels office without being accompanied by the way bills, and a guard is fully warranted in refusing parcels unaccompanied by way bills.

In dealing with "value or registered parcels" the greatest care should be taken that signatures are obtained for them as they pass from one person to another between the time of acceptance and despatch. Some companies use a special kind of value parcel envelope, a similar plan to that adopted by the post office. Whatever the instructions may be they should be carefully carried out to prevent the loss of "value parcels."

PARCELS INWARDS.—As soon as the guard has unloaded the passengers' luggage from his van, he hands out the parcels to the parcels train porter, who puts them into a barrow. The guard then hands out the way bills in a bundle, and the parcels and bills are at once taken by the porter to the parcels office.

The parcels clerk receives the way bills in the office, and should at once proceed to check them with the parcels. The porter "calls off" the address on each parcel and hands the parcel to the clerk, and the clerk checks the entry on the way bills and marks on the outside of the parcel, in coloured pencil, the amount of charge "to pay," or, when the carriage is prepaid, the word "paid."

All discrepancies, of which the following are the principal, should be at once reported to the guard and sending station, and followed up until put right.

- (1.) Parcels received without way bills.
- (2.) Way bills received without the parcels.
- (3.) Parcels crushed, torn or damaged in any way.
- (4.) " palpably undercharged in weight or calculation.
- (5.) " overcharged in weight or calculation.

The clerk after checking each parcel places it in the rack compartment appointed for the particular district of the town in which the consignee's residence or place of business is situated. When a delivery van comes in empty to get a load, the parcels waiting delivery for one of the districts are loaded into it. The vanman "calls off" the parcels, and the clerk, at the time, enters them up on to the delivery sheet. The object of marking the "to pay" amount or the word "paid" upon the outside of the parcel is, that the vanman may call it off, to avoid the necessity of referring to the way bills. The vanman keeps count of the parcels he loads, by making a chalk mark for each ten parcels loaded, and when all the parcels are put into the van, the vanman "calls off" the total number he has loaded. The clerk also makes a total of the number of parcels entered upon the delivery sheet, and if the two disagree, the checking work has to be gone over again, until the numbers are made to agree and the error corrected.

All delivery sheets should be progressively numbered as issued, and carefully examined every night or every morning to see that none are missing, and that proper signatures are held from the consignees, to insure that the parcels have really been delivered.

Parcels "till called for" are treated in much the same manner as goods "till called for," which see.

Some companies use a small label affixed to a parcel at either the sending or receiving station, showing the "to pay" amount, and a

printed remark that no person is authorised to receive more than is stated on it. Vanmen and delivery porters, however, have been known to manipulate these labels to obtain more than the proper charge, and then embezzle the surplus, hence the plan with some companies has been discontinued.

Refused parcels after being kept a reasonable time should be returned, either to the sender or to the central depot, according to the practice in force upon the line. (See under Refused Goods). If refused parcels contain perishables, the contents should be at once sold as directed under Clearing House rule.

Where a special delivery, or a delivery beyond the ordinary delivery limits has to be made, an extra charge should be collected and credited to the company. Sometimes it may be advisable to send a parcel by a cab, in which case the cab fare is charged.

Value or registered parcels should receive special attention and signatures given by each person through whose hands such parcels may pass.

PARCELS ACCOUNTS.—During late years the alterations and additions in working parcels traffic have been gradually assimilating the parcels business to that of the goods work. The passenger trained men do not, however, take kindly to the additional complications incidental to what has been borrowed from the goods work, but the force of circumstances cannot be ignored. The next probable step will be to adopt all the goods forms and plans, and make both parcels and goods departments alike. To do this would reduce the number of forms, save considerable expense in printing, and make the parcels clerks and goods clerks interchangeable. A parcels clerk is now, in a sense, an amphibious mortal, for while nominally on the passenger staff, he is not properly a passenger man, and the goods men disown him as quite unacquainted with their work. We would convert the parcels traffic into what the French call the “grande vitesse.” Attract to it all small packages from the goods trains under one hundredweight, and run distinct trains devoted to parcels, small packages, horses and carriages and railway service letters, and, where possible, passengers’ luggage. This small traffic is the kind of business done in America by the “express agencies,” who are allowed to run their own vehicles upon passenger trains. The parcels traffic would then be turned into express goods, and the passenger trains would become purely passenger trains. Something of this kind, to relieve passenger trains, must be done, to meet the possible new Railway Regulation Acts Amendment Bill, or some of the companies will soon score, with the Board of Trade, a long black record of trains over fifteen minutes late at terminal stations.

Just as the invoices are the documents upon which the goods accounts are based, so the outwards parcels way bill copies and the inward original parcels way bills form the basis of the parcels accounts.

The way bills are abstracted and the monthly abstract station totals aggregated into a monthly summary, and the totals of the monthly inwards and outwards summaries form the debit and credit in the same way as explained under Goods Accounts. Undercharges are

brought to debit by undercharge way bills. Local overcharges are summarised upon weekly or monthly returns and sent with the correspondence to the district officer, and when he certifies the return it is sent to the station and becomes a credit voucher for the coaching balance sheet. Foreign overcharges are treated differently. The consent of the foreign station is first obtained and then sent to the district officer, and he procures the consent of the district officer or officers of the foreign company or companies. Each company then issues a special voucher for the amount of overcharge, and the amount is cleared by the issue of a "paid on only" upon a way bill to which is attached the several vouchers. With overcharges upon cross channel, English and Irish traffic, the overcharge sheet is in use, and credit is taken for the overcharges upon the credit side of the coaching balance sheet.

Way bills for "paid on only" to foreign stations are sometimes necessary in claim cases, but are only permitted when accompanied by a voucher signed by the district officers of all the railway companies concerned in the traffic.

We have not thought it necessary to very closely particularise the working of the parcels accounts, as it would, in a measure, be duplicating much of the information given in relation to goods accounts, with only some slight variations here and there. Furthermore, our space has become circumscribed.

BOOKING OFFICE AND ACCOUNTS.

Time to commence booking—train book basis of work—balancing after booking each train—cash for change—keeping cash in safe—booking several trains at one time—ticket cases—tubes—commencing numbers—normal position of tickets and commencing numbers—examination of tickets to check missing numbers—issue of tickets out of order—ticket tubes, and drawing tickets out—marking number of first ticket sold on slate—half drawn tickets from tubes—old plan of marking numbers on slates—dating tickets in dating press—altering dates of press daily—tickets twice issued and used—Sloper's perforating dating press—stopping sale of tickets—making up train book—qualities necessary for a booking clerk to possess—classification of traffic book—balancing cash and totals of day's work, also for month's work—through booking when no train goes through—booking to a station where the train does not stop—more than one clerk having access to ticket cases—each clerk using a private mark in dating press—cash drawer—ticket stock book—half tickets, their issue—order of tickets in ticket case—making up and remitting cash—clerk's hours of attendance—giving change at ticket window—children sent on journeys alone—extending dates of return and tourist tickets—refusing to issue tickets when there is no room—overgot and undergot money—correspondence—booking office window, the clerk and passenger to see each other—Edmondson, inventor of card ticket and dating press—making a coaching balance sheet—*specimen balance sheet, with complete sectional balances of the different parts of the work.*

THE booking of passengers should be commenced as early as there may be any number of passengers waiting to take tickets. The usual time is fifteen minutes before the train is due to start, but much depends upon the local circumstances at each station.

The basis of the passenger accounts is the train book, and all the other books or returns that relate to tickets are simply compilations from the train book. As an invoice is the written groundwork of the goods business, so is the train book that of the passenger ticket business. If a train book is inaccurate and badly kept, all the rest of the work follows in like manner.

The vital point in booking passengers is to balance the cash immediately after each train is booked. That is to make up the train book showing the number of tickets issued for each station, and extend into the money column their selling price, and after making a total, see if the total corresponds with the total amount of the cash received.

Where there is an office safe available, all the money should be kept in the safe. A pound's worth of silver, or such other suitable amount as may be necessary for change, should be taken out of the safe from the floating capital and put into the cash bowls in the cash drawer. If bank notes for five pounds, ten pounds or twenty pounds are offered at the first class ticket window, they can be changed out of the cash in the safe, and the change handed to the passenger, but withholding sufficient of the change for the price of the ticket.

Where there is no office safe, and the drawer is the place of security for the cash, the pound's worth of change may be put out upon the counter on one side, and the bookings for the one train kept on the counter until the train book is made up.

At times a booking clerk has to book two or three or more trains either together, or so rapidly one after the other that he has no time to make up his train book and separately balance his cash for each train, and therefore the balance has to be made for the several trains in globo. This makes it a little difficult afterwards to extract from the train book the bookings of a particular train over a period. When, however, several trains have to be booked in this way nearly together, it usually happens that they travel to different towns, and this variation affords a clue for afterwards making extracts and compiling returns from the train book. Where there is time to balance the cash after one train is booked and before commencing to book another, it should be done.

COINAGE ACT, 1870.—33 *Vic.*, *cap.* 10.

Section 7.—“Where any gold coin is below the current weight as provided by this Act, or any coin is called in by any proclamation, every person shall, by himself, or others, cut, break or deface any such coin tendered to him in payment, and the person tendering the same shall bear the loss. If any coin, cut, broken or defaced, in pursuance of this section, is not below the current weight or has not been called in by any proclamation, the person cutting, breaking or defacing the same shall receive the same in payment according to its denomination. Any dispute which may arise under this section may be determined by a summary proceeding. Sovereign—standard imperial weight, 123·27447; metric weight, 7·98805; least current imperial weight, 122·50000; least metric weight, 7·93787. Half sovereign—standard imperial weight, 61·63723; metric weight, 3·99402; least imperial weight, 61·12500; least metric weight, 3·96083.”

The tickets should be kept locked up in ticket issue cases and placed in what are termed tubes, and over the tubes should be printed or written the names of the stations and the price of the tickets. Strips of slate are placed over the tubes and are used generally for marking the “commencing numbers” of the tickets. When a tube is filled with say, fifty or a hundred tickets, according to its capacity, the “commencing” or lowest number is placed at the bottom to be drawn out and sold first in turn. The numbers of the tickets commence with 00 and run up to 249, 499 or 999, according to the extent of the traffic between each two particular stations. If the first twenty tickets have been sold from a tube the “commencing number” of the next ticket partially drawn out from the tube will be 20. In counting tickets it must always be borne in mind that 00 really represents a ticket before number 1, for the purposes of subtraction. So, if a number in the tube is 40, then forty tickets will have been sold although the last ticket sold was number 39. When a passenger asks for ten tickets, and, say the commencing in the tube is 20, the thirtieth ticket should be left in the tube and ten tickets will still have been drawn out.

Before a booking clerk commences to book a train, he is supposed to have the slates over the tubes perfectly clean and free from figures. The normal position of the first ticket for issue in each tube is to be slightly drawn out from the tube, sufficiently far that the progressive number upon the end of the ticket can be easily read. It is of the greatest importance that each bundle of tickets is examined and counted when received from the audit office or printers, and also when placed in the tubes for sale, so as to make sure that the number of tickets in the gross is correct, and that the tickets are placed in progressive rotation order.

It is also of equal importance that the ticket case should always be kept locked, except when trains are being booked, so that no person can abstract a ticket from the case, out of the middle of a number of tickets in a tube. It is likewise of importance that the collected tickets are closely examined at the audit office, to detect tickets (if any), used by travellers, out of progressive order, with intent to defraud the company.

The ticket tubes are constructed on the principle of hoppers, for as one ticket is drawn out at the bottom, the next ticket in rotation, from the weight of those above it, falls down into position for being conveniently drawn out. A booking clerk wets his finger, puts it under the tube and upon the ticket and draws out the ticket completely from the tube, and also, by the same automatic movement of the fingers, partially draws out the next ticket. While doing this, he should notice that the numbers of the two tickets run consecutively. Before, however, he draws out the *first* ticket he is about to sell from a particular tube, he takes up a piece of slate pencil and puts the number of the ticket upon the slate over the tube. In drawing the second ticket he should draw it a little farther out of the tube than the normal position in which the other tickets are left. Some clerks, however, after selling a ticket from a tube, leave the next ticket undrawn. The object of either of these acts is to afford a distinctive sign to subsequently direct attention quickly to those tubes from which tickets have been drawn since the last making up of the train book, and so facilitate the balancing of the cash, as will be seen hereafter. When the train book has been made up the half drawn tickets should be pushed back to their normal position, and the commencing numbers on the slate cleaned off with a sponge. The old fashioned plan was to keep permanently upon the slates the "commencing numbers," but this plan is now pretty generally in disuse, and the commencing numbers on the slates are only written when a ticket has been drawn from a particular tube.

After the ticket is drawn from the tube, and before it is given to the passenger it must be dated, and this is done by a dating press; and the first kind of press used for this purpose was invented by Thomas Edmondson.

We find in volume 6 of *Household Words* for 1853, some account of Edmondson, in an article entitled "Our Passport System." It appears that Thomas Edmondson, who was a Friend or Quaker, when about forty-five years of age was a railway booking clerk at a small

station on the Newcastle and Carlisle Railway, and at that time railway tickets consisted of bits of printed paper with blank lines. It was Edmondson's duty to tear out a paper ticket from a sheet, possibly a counterpart sheet, and fill up the blanks with ink, according to the destination of each passenger, and the fare paid. One day Edmondson was walking in a field in Northumberland, possibly turning over in his mind the laborious process of issuing tickets. Suddenly the idea occurred to him to substitute the card ticket with a printed date. His organ of "locality" must have been large, because he could afterwards always point out the spot in the field where the idea occurred to him. Edmondson made known his idea to a companion named Blaylock a watchmaker, and the two perfected the dating press, and the use of the card ticket. The Manchester and Leeds Railway Company was the first to use Edmondson's tickets, and they secured Edmondson's services for a short time at Oldham Road Station to introduce the system. Edmondson took out a patent for the dating press, and for a printing press to print the tickets. The presses were supplied to railway companies, and a royalty was charged by Edmondson at the rate of ten shillings per mile of railway per annum. In his earlier days Edmondson had been unfortunate, and became a bankrupt, but as soon as he commenced to make money with the presses he honourably paid up every shilling he owed. He died 22nd June, 1851, at the age of eighty-eight.

The card ticket invented by Edmondson is pushed into an aperture in the centre of the dating press, and the press being constructed, as it were, in halves on hinges, the clerk's pressure of the ticket into the press causes the halves to tighten together at the junction where the ticket rests, and by the aid of type and a ribbon saturated with printers' ink, the month, day of the month and year is printed in a moment on the end of the ticket. The type figures in the dating press should be altered every night after the last train has left, to be ready for the first morning train. As from use the impression of the date on the ticket becomes fainter the inked ribbon must be wound back occasionally to where the ink on the ribbon is fresh.

The originality and genuineness of a ticket for a particular journey, proving that it really represents the cash for that journey, depends upon the date. A ticket twice issued and used for two journeys is not on the second occasion "original," and if money has been really paid for it the cash is most likely to have reached the wrong pocket. When a date upon a ticket is imperfectly printed, and subject to erasure, and a new date is re-stamped upon the ticket, a fraud will have been committed upon the company. Frauds are even perpetrated by the passing of false bank notes, and the same kind of thing applies to railway tickets, and the temptation is great where a ticket represents a value of five pounds or upwards, the cost of a long journey. This kind of fraud, however, is now nearly impossible, because at particular junction and terminal stations the tickets are nipped, a piece of the ticket of a peculiar shape is cut out, and a number impressed into the surface of the ticket. The number, as well as the peculiar shape of the cut out piece, stands for the name of the station where the nipping is done.

This in a sense defaces the ticket, and any attempt to use it afterwards for a second journey would be at once checked, and defeated by the ticket examiners along the route.

To further prevent the possibility of tampering with the printed dates on railway tickets, Sloper's Patent Perforating Dating Press has been invented. This dating press punches out the figures, in pin-hole form, at the end of the ticket, and thus gets rid of the possibility of erasing one and substituting another printed date upon a ticket.

The booking clerk with the greatest possible despatch and care to avoid mistakes, continues to give out the tickets and take in the money, keeping all the cash together. When the starting time for the train is up, the entrance doors are closed and the signal given by the inspector or agent on the departure platform, that the issue of the tickets must cease. The booking clerk then goes over his ticket cases, and where the tickets are drawn out from a tube beyond the normal position, or where commencing numbers are written upon the slates, he knows that he has sold tickets from those tubes. Suppose at one tube the commencing number was 40, and the next ticket protruding from the tube to be sold is now number 50, the clerk will see that he has sold ten tickets from that tube, and he enters in his train book Blanktown 40 to 50, ten first class tickets at two shillings and sixpence, one pound five shillings. In like manner he goes over all the tubes from which tickets have been drawn. Ordinary first, second, third, parliamentary, and return first, second, third class tickets, as well as tourist and excursion tickets to *each station* are kept in separate tubes, and each kind and class of ticket is treated as a distinct set or issue. After the clerk has gone over his ticket tubes and posted his sales for the one train into the train book, he makes a total of the money column and then counts his cash, first deducting the amount he put aside for change. If the train book and the cash do not balance it may result from (1), an error in making up the train book; (2), an error from giving wrong change or short charging, leading to an excess or deficit in the cash.

The process of booking passengers is thus very simple, but it requires considerable care and quickness (1), in demanding the right amount of fare; (2), in mentally calculating on the moment the total for three or four tickets at one price, purchased by one passenger; (3), the giving of the correct change. A booking clerk must have all his wits about him, be apt at mental calculation, and like a bank-teller, ready at handling cash.

CLASSIFICATION OR TRAFFIC BOOK.—At the close of the day's transactions the train book is ruled off and totalled, and a balance must be made of all the passengers booked and the cash received *for the day*. This is simply done in a classification or traffic book ruled with daily extension columns across the book, similar to those used in a goods porters' ledger, from which probably it has been adopted. The booking clerk, after the *last train of the day* is booked, goes over all the tickets in the tubes and enters up the *then* "commencing numbers" into the classification book. When the "commencing

number" is the same in the tube as the number on the preceding day, no ticket will have been sold from the particular tube, and to save writing, the "commencing number" is not brought forward. If, however, the commencing number is higher than the day before, the clerk enters it and afterwards inserts the total number of half tickets cut for children or cancelled, and then works out the total number of tickets sold from that tube *for the day*, at the particular fare and extending the money. Having gone over all the tickets in this way, the columns are then totalled, and these totals should agree with the train book. If there have been twenty trains booked during the day, the twenty totals should agree with the one total in the classification book. The record of the train book is for tickets sold *per train*, while the record of the classification book is for the tickets sold *per day* in the gross. If the cash and the train book are made to agree after the issue of the tickets for each train, and the train book and the classification book also balance at the close of the day's work, the account keeping will be correct and the money ought likewise to come out right.

At the end of the calendar month, for balance sheet purposes, a monthly total is required in the classification book and is easily obtained. The "commencing number" and "closing number" of all tickets to each station, whether there has been an issue or not, is extended into the classification book to a final column, and the total money due for such tickets also extended. This monthly total of each station, and also the foot total of each page of the book can be proved by cross-adding. Hence the totals of the classification book kept on this principle, show the total for each day and for each month.

A booking clerk must be thoroughly well up in the time table or he will disarrange the journeys of passengers and bring upon his company serious claims for compensation. Two simple mistakes that will occasion this trouble are (1), booking a passenger to a station at which the particular train does not stop, and to which there is no provision to set down the passenger; (2), booking a passenger on a through journey on the company's line or upon a foreign company's line, when there is no corresponding train at some junction to carry the passenger forward.

Putting two clerks, during different hours, in charge of one or more ticket cases in a booking office, is like putting two engine drivers to take charge of one engine, the effect being that the mistakes or the breakages cannot be easily fixed upon either of the two men. A dishonest booking clerk may, by trickery, ruin several of his fellow clerks before the finger of suspicion is pointed at him. Where there are five or six clerks it would not be convenient to have five or six sets of ticket cases, one set for each man, nor would it be convenient to have the duplicate issue of tickets. A stock taking of the commencing numbers of tickets could be adopted, as one clerk took up duty from another clerk, but this would not prevent a dishonest man filching tickets from the tubes out of consecutive order. A good system of checking the collected tickets, and a vigorous personal inquiry into each irregularity brought to light, is the best check to keep weak minded men from yielding to temptation.

The plan of using private marks and signs on the type of the dating press is a protective check, but nothing can with certainty circumvent artful collusion between the issuer and collector of tickets, except some accident on their part. Four separate pieces of type metal usually constitute the printing or perforating machinery in a dating press. The piece of type that prints or perforates the year ('84) is a permanent figure during the year. Each booking clerk in an office is furnished yearly, for his own use, with a separate piece of type with the year and a private mark upon it, and this mark is recognised as his private mark. His signature is taken for this piece of type, and he is required to keep it always about his person, except when he places it in the dating press for use. A dating press when not in actual use should be without the piece of type that prints or perforates the year upon the tickets, each clerk putting into it his own private year type when commencing to book passengers, and taking it out as soon as he has finished. The effect of this, if properly carried out, is that the clerk who issues a ticket can be identified and, of course, made responsible for the fare. If a clerk allows his private year type to pass out of his possession through carelessness or design and it is used fraudulently, he is made amenable for the consequences or loses his situation. Thus, although access to the tickets in a ticket case is common to several clerks, the clerk who dates and sells a ticket can be traced and identified—all plans, under exceptional circumstances, may be evaded, but this system narrows the opening for speculation. If one clerk supplied himself with a piece of type to imitate the private mark of another clerk in the same office, and used it in the issue of tickets and embezzled the money, he would simply be cheating his fellow clerk and not the company.

Security in the keeping of cash is of the very greatest importance. The cash drawer should be furnished with bowls hollowed out of square blocks of wood, and be a perfectly secure receptacle for money. Cash drawers, particularly at stations where safes are deemed unnecessary, should be specially constructed appliances kept in stock at the stores, and adaptable to the fittings of every booking office counter. We approve of a light sheet iron drawer, sliding in an iron casing and frame, and secured by an unpickable lock. A drawer of this description cannot be readily prised open.

A ticket stock book should be carefully kept in every booking office. The tickets should be entered into the stock book as received, and the stock on hand checked with the stock book once a month. All losses of tickets or losses in booking, should then be cleared up monthly, when the coaching balance sheet is made out. The chief clerk should also go over the stock, say in November or the end of the year, and certify at the end of the stock book that the stock of tickets, as stated in the book, is really on hand on the date in question. Particular care should be taken not to allow the supply of any particular kind of ticket to run out suddenly. When a stock of tickets is received upon a requisition, each bundle ought to be carefully examined before the voucher is signed, to see that the numbers run consecutively, and that the full number charged against the station is

in each bundle. The reserve stock of tickets, like those in the ticket cases, should be strictly kept under lock and key, and the key should be confined to the custody of one clerk who should give out tickets as required for placing in the tubes. Bundles or issues of tickets may consist of one hundred, two hundred and fifty, five hundred, one thousand, five thousand, according to the number of passengers usually travelling between any two stations.

Tickets for children over three and under twelve years of age, being sold at half the adult fare, an ordinary ticket is usually cut in half and issued for the child, and the unsold half retained on hand until purchased. This plan is troublesome in leading to a number of half tickets remaining on hand unsold. Between large towns where there is a large sale of half tickets, special full sized tickets are printed for children to reduce the necessity of dividing the adults tickets and their conversion into half tickets. The London and North Western Company adopt what appears a good plan for half tickets. At the bottom and near to the edge of all tickets is printed in small type a number and the name of the arrival station. The number represents the departure station. By the aid of a pair of nippers this particular piece is cut out of an ordinary or return adult ticket, and this operation converts the adult ticket into a half ticket. This mutilated ticket sold for a child is thus converted into a voucher for only a half fare, and the piece nipped out becomes a second voucher for the other half fare, and for which credit is taken in the next coaching balance sheet. The object in mutilating the ticket is to prevent its use by an adult passenger and to enable a ticket examiner or collector to know that the proper fare has been paid. This plan does away with unsold half tickets on hand, and the carrying forward of a balance for half tickets on hand, which is difficult to check.

The order in which tickets are usually placed in the ticket cases varies, for the local stations the usual practice is to place them in station or geographical order, perhaps commencing with the principal station from which the main line trains start. Tickets for foreign stations are placed in alphabetical order, keeping separate the tickets for each different railway company.

In making up and remitting cash in bags by train, the same care is necessary as explained in respect to goods cash.

As the duties in a large booking office are necessarily early and late the clerks usually alternate the work of booking the early and late trains, and therefore it is useful to post up an attendance list in the office, showing each clerk's working hours for the week or month as the changes on duty may be arranged.

All booking office ticket windows on the outside should be provided with a barrier, as some protection for the weak against the strong. The usual notice plate as to counting change before taking it from the window should be fixed in the counter and visible to the passenger. Persons agitated and in a hurry find it difficult to pick up coins from a flat surface, and thus the speed in the issue of the tickets is often retarded. To obviate this we would propose the plan of sinking a shallow bowl of about three or four inches diameter on the spot

where the passengers' change is now placed. The passenger would then put his hand into the bowl and quickly grip his change and ticket and move away from the window. Disputes about change should be avoided as much as possible. With both passengers and booking clerks when putting down money the amount should be called out to prevent mistakes. A sovereign taken for a half-sovereign or a half-crown taken for a florin might then be avoided. If a passenger in putting down a sovereign calls out the value, a booking clerk would hardly make any mistake, and he could not afterwards, in giving the change, reasonably contend that he only received half a sovereign.

Some booking office windows are so arranged that the passenger and booking clerks do not see each other's faces. This we consider wrong, as two persons transacting business, where money is in question, should have the opportunity of seeing and identifying each other in case of disputes. Either a stout wire grating or the new form of plate glass window with an opening to pass the ticket, and another opening for seeing or speaking, is a step in the right direction. In front of the plate glass pane a shutter window can be provided to pull down when there are no passengers taking tickets.

Children sent on journeys alone should not be booked unless a written address is stitched upon the clothing of their arm or chest.

The charging of a special fee for extending the dates of tourist or return tickets has been a step in the right direction, for it has at some places been a perfect nuisance to officials to be asked to extend tickets, as the oftener it has been done for passengers the more the demand has grown.

In cases of intending passengers congregating in unexpected crowds, in excess of the train or carriage accommodation, the booking clerk should decline to issue tickets beyond what the train can carry. If a ticket is issued the contract to carry has been made and the company is then responsible to carry the passenger. If the carrier has no room he can legally refuse to carry, but the onus of proof that he was really unable to carry will rest with him. Where accidents, unusual snow-storms, floods, or the like, have occasioned blocks to the traffic over the country, passengers, when taking their tickets, should be warned that they may be delayed or obstructed in their journey and that the company will not be responsible.

Notwithstanding the greatest care booking clerks during the hurry and rush make mistakes in giving change, sometimes to their gain and sometimes to their loss. A booking clerk, however, from familiarity with the excitement, is usually better able to take care of himself than are many inexperienced passengers. Some companies hold their clerks responsible to account for the actual amount of the fares on tickets sold, and ignore the question of overgot and undergot money. It may be assumed generally from human nature that most booking clerks when finding themselves deficient from giving a passenger too much change will trust to overgot money to be re-imbursed. Booking clerks do not get salaries such as will enable them to make good large losses. It therefore seems to us the wiser plan to make clerks account

for the overgot money, and condone and write off clerks' losses when reasonable in number.

The plans explained under the goods section for conducting correspondence are also available for passenger and parcels correspondence. Passenger and parcels correspondence, in our opinion, has always been loosely conducted between station and station. The vile practice of writing across a letter or turning up the corner and writing upon it, and thus keeping no copy, has pretty generally been the practice in the conduct of passenger and parcels correspondence. The plea usually is, that there is the greatest advantage in having all the papers of the case together; but if a bundle of papers miscarries and becomes lost all record is gone, and the inquiries have to be recommenced *de novo*. The passenger people are often so unwise in their generation that they ignore this weakness, and decline improving their work by taking a leaf from the goods people; but no matter, a goods leavening process is still going on, and possibly some day it will overtake this matter of correspondence. The papers in a passenger or parcels case belong to the station commencing the inquiry, and responsible to carry it through. In the absence of adopting the goods system we would recommend the use of the not unusual memorandum form divided into halves, one side for "inquiry" and the other for "answer." Let the sending station write the inquiry in *copying ink*, but omit to take the tissue copy. When the answering station has written the reply in *copying ink* let the clerk there take as a record a tissue copy of both the "inquiry" and "answer." Rigorously forbid writing across or upon the corners of letters. The inquiry station will thus have the file of papers as a record, and the answering stations will have a tissue copy of both the inquiry and the answer.

MAKING A COACHING BALANCE SHEET.—The following sectional balances afford information as to how the details of the work are brought together, and the figures proved before insertion into the balance sheet. We have thought it better to adopt a plain debit and credit account, showing how the various items are marshalled, and when this has been thoroughly grasped in the mind, the subtraction and addition, as required in some companies' balance sheet forms, may be easily acquired.

SECTIONAL BALANCE—OUTSTANDINGS.

See under Cash Balance for Index to letters and numbers.

Cr.				£	s.	d.	£	s.	d.
By outstandings, general, uncleared, - - -	L.M.B.	42	3	14	5				
" outwards parcels, - - -	O.P.	42	14	7	6				
" inwards " - - -	I.P.	42	22	4	2				
" sundries under correspondence, -	S.	72	0	2	3				
" appendix debits, - - -	A.D.	42	0	19	11	41	8	3	
" ledger accounts, outwards parcels, -	O.P.	42	20	4	2				
" " inwards " - - -	I.P.	42	14	2	4				
" " arrears, - - -	L.M.B.	42	0	9	5	34	15	11	
" losses on bookings, - - -	P.B.	21	1	2	10	1	2	10	
" cash short remitted, - - -	C.B.	2	18	2	4	18	2	4	
						95	9	4	

SECTIONAL BALANCE—"NO DEBITS."

See under Cash Balance for index to letters and numbers.

				GENERAL			MISCELLANEOUS		
				£	s.	d.	£	s.	d.
<i>Dr.</i>									
To amounts brought to final debit, - - -	B.S.	57		4	2	8	6	7	4
" " temporary debit, - - -	B.S.	55		2	8	2	9	2	6
" refunded, - - -	C.B.	35		0	5	0	...	...	...
" on account of inwards parcels, - - -	I.P.	36		1	8	4	...	...	...
" from appendix, - - -	A.D.	32		0	2	4	0	1	2
				8	6	6	15	11	0
							8	6	6
							23	17	6
<i>Cr.</i>									
By balance from previous month still uncleared, - - -	B.S.	41		£	10		£	4	5
" "no debits" from cash book balance, - - -	C.B.	59			19			9	7
" " " overcharge " - - -	O.	32			0			1	2
" " " appendix Cr. " - - -	A.C.	24			0			2	4
							23	17	6

COACHING BALANCE SHEET.

						£	s.	d.
<i>Cr.</i>								
By cash remitted, as per summary, - - -	C.B.	1	2,000			0		2
" returned fares, as per attached statement, - - -	C.B.	3				4	5	0
" season ticket deposits returned, as per statement, - - -	C.B.	4				0	10	0
" special credits allowed by audit, - - -	L.M.B.	11				0	7	1
" " " - - -	L.M.B.	10				0	10	8
" " " - - -	C.B.	5				0	4	2
Parcel credits, viz.:-								
" Paid ons," local and foreign, as per abstract summary, - - -	P.O.B.	34	384			5		2
Foreign parcel claims paid, as per voucher, - - -	C.B.	6				8	9	2
I. R. C. Ho. certified overcharge sheets, as per list, - - -	I.P.	23				0	4	2
Local " " " - - -	O.	28				0	18	5
Audit special credits, - - -	L.M.B.	39				0	0	4
" " " bad debts, - - -	L.M.B.	13				0	2	4
Amounts reclaimed, previously brought finally { £1 2 8	I.P.	62						
to debit, viz., "no debits" and "paid ons," - { 0 4 8	A.D.	37				1	7	4
Credit notes, - - -	C.B.	8				0	14	0
Appendix credits, - - -	A.C.	44				1	6	6
Amounts transferred from last month, viz.:-								
" Paid ons " not paid, - - -	P.O.B.	30				8	4	2
Amounts without debit—general, £2 8s. 2d.; miscellaneous, } £7 18s. 3d., - - -	N.D.	41	10			4		5
Balance transferred to next month, viz.:-								
Cash short remitted—bookings of late trains last } day, - - -	C.B.	2						
Losses booking passengers, uncleared, - - -	P.B.	31						
Parcel and other outstanding, - - -	O.S.	43						
" ledger accounts unpaid, - - -	O.S.	43				95	9	4
			2,417			2		5

COACHING BALANCE SHEET—Continued.

<i>Dr.</i>			£	s.	d.	£	s.	d.
To balance from previous month, viz.:-								
Cash short remitted, bookings of late trains last day of month, -			160	12	4			
Losses booking passengers uncleared, -			0	10	8			
Parcels outstanding, -		L.M.R. 9	23	6	6	184	9	6
" Sale of tickets to passengers, viz.:-								
Ordinary single, first class, -			50	2	6			
" " second class, -			180	2	4			
" " third class, -			450	8	6			
" return, first class, -			60	8	5			
" " second class, -			100	4	9			
" " third class, -			280	6	10			
Officers, soldiers, volunteers, -			120	4	2			
Excursionists, -			40	8	4			
Season tickets, -			10	0	0			
Excess fares, -			4	3	2			
Overgot cash booking passengers, -		B.P. 66	0	8	2	1,336	17	2
Audit office special debits, -		B.P. 68	0	8	4	0	8	4
" Parcel, excess luggage, horse, carriage, and dog traffic:-								
Parcels "paid" outwards, local, as per abstract summary, -			O.P. 45	49	8	108	2	9
Parcels "paid" outwards, foreign, as per abstract summary, -			O.P. 46	284	5	60	8	2
Parcels "to pay" inwards, local, as per abstract summary, -			L.P. 16	120	8	103	2	1
Parcels "to pay" inwards, foreign, as per abstract summary, -			L.P. 17	24	3	14	8	4
Excess luggage outwards, local, -			O.P. 47	6	8	...	...	...
" " foreign, -			O.P. 48	4	5	...	...	...
" Sundries, viz.:-								
Left luggage fees, -		C.B. 50	...	...	...	4	8	4
"Paid on" unpaid brought to final debit, -		P.O.B. 51	2	8	4	1	2	4
"No debits" unclaimed, -		N.D. 52	4	2	8	6	7	4
Collection, delivery, and storage, -		I.P. 18	...	...	...	2	8	4
Insurance premiums, -		O.P. 49	...	...	...	0	8	2
Covered carriage trucks, special charge, -		P.O.B. 27	...	...	...	0	10	0
Newspaper stamps sold, -		O.P. 53	...	...	...	0	5	0
Audit office special debits, -		L.P. 19	0	6	0	0	4	0
Unentered parcels, local and foreign, -		I.P. 20	8	4	0	2	6	5
Overgot cash, -		O.P. 54	...	...	...	0	1	0
Appendix debits, -		A.D. 71	1	2	8	0	10	2
"Paid on" unpaid, transferred to next month, -		P.O.B. 29	60	2	4	8	4	1
Amounts without debit, -		N.D. 55	2	8	2	9	2	6
			567	13	7	321	19	0
Sale of time tables, guides, &c., -						S. 55	0	2
Cab stand rents, -						S. 56	1	0
Sales of perishable and other Goods, -						I.P. 21	0	8
Lavatory receipts, -						S. 57	4	2
Postages recovered from traders on advices, -						I.P. 22	0	2
							2,417	2
								5

DISCIPLINE OF PASSENGER STAFF.

Terms applied to men performing different kinds of work—men appearing on duty unclean and untidy—men to sign for books of rules—examining men as to their knowledge of the rules—inspector or head porter acting as deputy for agent—deputy in agent's absence to be nominated—civility to passengers—company's servants drinking at refreshment rooms—general orders—training special porters to answer questions about trains—apportioning duties, and training second men to fill certain posts—late hours and night work to be taken in turn—register of men's places of residence—civility and coolness with irritated passengers—lock-up places for stores—economy of gas—light at dangerous places—walking on railway and in tunnels, and avoidance of accidents—policemen to be sworn as special constables—station manuscript order book.

DISCIPLINE has been very fully treated under the goods section, but still there are a few remarks to be made here that apply specially to the passenger staff.

A passenger staff at a large station is usually made up of the following men, but although the terms applied to the men indicate the character of their duties and the division of their labour, yet it does not follow that they may not be required upon emergencies to turn their hands to other kind of work than that usually apportioned to them—

Platform inspector.

Foreman porter.

Ticket collectors.

„ examiners.

Policemen.

Shunters.

Couplers.

Pointsmen.

Signalmen.

Platform porters for first and second class passengers.

Platform porters for third class passengers.

Office porters.

Porters for horse and carriage loading.

Carriage cleaners.

„ searchers.

Greasers.

Lamp Trimmers.

The passenger men who come directly in contact with the public have comparatively no dirty work to perform, and therefore there is no excuse why they should disgrace the station by appearing on duty unclean and untidy. Unshaven chins, untrimmed hair, soiled and torn collars or shirts, dilapidated neckerchiefs, boots with torn or burst sides, rents in uniform and buttons absent, unbrushed and greasy clothes, unwashed face and hands, all afford evidence of slovenliness. In all stations of life there are men of a dressy, clean, trim, appearance, which, commencing in childhood, remains with them throughout the whole of life. They make the most of what they can

get, and put their clothes on well. Such men may often be without much depth of character, but, as porters, they look well about a passenger station, and the public eye must be pleased. No person likes a dirty greasy waiter or parlour maid, and the sentiment is the same as to passenger porters, ticket collectors, guards and inspectors. It is beside the question to say the right men cannot always be obtained, for there are plenty of them working among the goods porters who have been misplaced, and therefore the scope of selection is extensive. Although the two departments are distinct there need be no rivalry or jealousy between them as to men. It would, however, be manifestly unfair, *as a rule*, when the passenger superintendent engages a man who turns out a bad bargain, to shunt him to the goods department in exchange for a good man. When passenger porters are wanted there should be a parade of goods porters who might be willing to serve as passenger porters, and the passenger superintendent should attend and endeavour to select the right kind of men he wants from the existing staff, before engaging strangers. Passenger platform men should be paraded in line for inspection at least once a week, just before they go to dinner, or at some other convenient time, but without previous notice. Any man untidy or unclean, and damaging his uniform, should be reprimanded before his fellows, and those who cannot be influenced in this way should be converted into lamp-trimmers, carriage cleaners, or otherwise disposed of for dirty work. A schoolmaster told us that he once had a shocking dirty boy attending school. The schoolmaster gave notice to the boys that, in future, there would be an inspection every morning, and all boys coming to school dirty or untidy would be punished, and he nominated the dirty boy as the inspector. The dirty boy from the next day became quite a changed mortal, he smartened himself up and showed no mercy to offenders. The cure was complete.

We have, however, known many valuable men who could not be kept neat and tidy, and yet for work would be worth two of the trim, spriggish kind. On no account therefore despise a man of the untidy kind when he has ability, but allow for his deficiency, and transfer him to the goods department where his value for work will be developed and utilized.

It is of great importance that all passenger men should be given a book of the company's rules, in respect to the working of trains and signals, and the operation of shunting, and that signatures should be taken for such books from each man. This formality should be followed up by forcing the men to commit to memory the substance of the rules. They should be periodically taken, both singly and in class, and catechised. The person catechising them should hold the rule book in his hand, and question the man as to what ought to be done under this or that rule, when certain circumstances may arise. In like manner as divinity, engineering and medical students are taught at college by a professor, so should the men be taught. The general orders should be carefully preserved in a guard book, and the men catechised in like manner, as far as each man's duty may be affected

The inspector or the head porter, or both, are the agent's petty officers, and must control the staff in the carrying out of the details of the work.

Unfortunately an accident, sudden illness or some serious emergency may happen at or near any station at any time of the day or night, and therefore when an agent is out of the way, either on the company's business or at reasonable times on his own business, the responsibility of the charge of the station should in the interim be fixed upon some person who shall be actually on duty. Even warders at gaols have a relief time, and a station agent cannot be supposed to be in charge actually or nominally for the twenty-four hours of the day and night. It should be defined by a district officer as to who is the recognised person to be in charge when the agent may be reasonably absent for an hour or two. It is a serious mental responsibility upon a conscientious man to think that he is ever and always to be held liable, and can have no relief from being on duty, unless at his own risk.

Civility to passengers by company's servants should be insisted upon, and when necessary, the men coerced into it. Some men, however, cannot be civil, as it is part of their natures to be disagreeably self-assertive, or, at times, silent and laconic. Answering questions is a trouble to them, and it is not in their natures to try to please, but, on the contrary, to be grumpy. Their natures eminently fit them for a station on a moor, or other desolate place, where they can be happy alone, but where cheerful men would pine and be miserable. The round man should be fitted into the round hole and not into the square hole.

Certain porters with good memories and of good address should be utilised for answering inquiries about the times that trains arrive and depart. This, however, need not preclude the other porters answering the same kind of inquiries, but, as far as possible, it is well to make it a speciality, and put forward special men who are peculiarly qualified for the duty by their intelligence. It must be borne in mind that false or erroneous information about trains, causing intending passengers loss or inconvenience, is likely to render the company liable for claims, not to speak of the disrepute arising from such misrepresentations. The same plan applies to inquiries as to cab fares, for the company's servants should not allow their employer's customers to be deceived by dishonest cabmen.

Men frequenting the refreshment rooms to take drink is a very difficult question. Guards arriving after long journeys on winter nights need refreshment in moderation. We would, however, prohibit the sale of all *spirits* at refreshment rooms to the staff, except in case of accidents or *bona fide* sickness. Men might be allowed to get beer and porter with their meals when taken in the porters' room, but indiscriminate drinking between meals at refreshment room bars can do the men no good. There should, however, be some difference made between men travelling and station men within reach of their own homes. Men look upon "tips" as wind-falls that may be legitimately spent in drink, without depriving their wives and families of part of their wages. To see men in uniform at a station under the influence

of drink, obtained on the company's premises, is a disgrace to the service. The refreshment room young ladies should be required to advise the agent of those men who are too frequent customers at the bar for drink, that they may be cautioned and checked. One foolish fellow making a drunken exhibition of himself gives rise to coercive measures, whereby sober men are stopped from getting reasonable refreshment. If the weak men, who are inclined to go to extremes, are kept in order by the barmaids, assisted by their sober comrades, mischief may be prevented. The outside public houses adjacent to the station are often the greatest curse to the men. The only plan to shut that avenue, is to put a person on now and then for a week, to watch and take the numbers on the uniform of any company's servants frequenting these houses during business hours, and then dismissing two or three men, so as to stop the others going beyond the station premises during business hours. Of course the men should be warned beforehand not to leave the station during business hours to get drink.

In apportioning the duties to the men it should be always kept in view, to have suitable second men to fill particular posts, such as that of inspector and head porter. Promotion incites *esprit de corps*, and encourages emulation among a staff.

The late hours, or all night duty, should be fairly apportioned in turn among the men, and a trustworthy inspector or head porter put in charge during such times.

A register should be kept of the residences of all the men, and checked once a month on pay day to make corrections when men may have changed their residences.

It is a wise thing for an agent to occasionally and unexpectedly visit his station during the night time to see that all is right, and that signalmen and watchmen are awake and fit for duty. It is equally advisable to attend early trains occasionally to see that the men responsible for the work at the particular hour are at their posts in good time.

The men should see a good example on the part of the agent, and be taught civility and coolness in their converse and intercourse with passengers. When passengers have missed their train, lost their luggage, or become impressed with a grievance, they naturally become excited and frequently use unbecoming language. It should then be recollected that "a soft answer turneth away wrath." Railway employees should steadily and persistently resist the invitation and inclination to be drawn into an argument. Argumentation, pervaded by passion and temper does no good, and leads to quarrelling and abuse. Persons out of temper often become mild if sympathised with, and allowed to freely exhaust the vials of their wrath without contradiction. If, however, sympathy makes them worse, which it does in some cases, it is better then to walk away and leave the passion to burn out of its own accord.

There should be a fit and suitable lock-up place for stores and articles thence given out once or twice a week as required. Nothing so much gives rise to wanton waste as a too plentiful supply of stores easily accessible to the men.

Certain men should have the duty fixed upon them of turning out the gas in offices on platforms, also round and about the station, at hours when the lights are not further required. A gas pressure gauge at a station greatly economises the gas. At all dangerous places where, for want of light, passengers might tumble or otherwise receive injury, a lamp should be erected and kept lighted during the hours passengers are likely to be about.

When company's servants have to walk along a railway upon duty, they should walk along the centre of the trackway *between the two lines of rails* but keeping rather to the right pair of rails. If a man looks well ahead to the right he can see a train approaching him better than he can keep a watch upon a train overtaking him. In avoiding one train upon one line of rails never step upon the other line of rails *without first looking to see* that no train is approaching on the second line. Many men have been killed from this oversight. If a man cannot get from between the two lines of rails before being enclosed between two trains going contrary ways, let him lie down in the middle between the two lines of rails and cover his head with his arms and he will suffer no harm. The same applies to walking through tunnels, except where there are shelter places in tunnels that can be easily reached before one or more trains overtake the pedestrian.

It is well to have on duty at stations a company's policeman, who has been sworn in before magistrates as a special constable. He then has a power of arrest within certain limits, whereas an ordinary company's policeman not so sworn in has no power of arrest.

It is of very great importance for an agent to have an order book for his own orders to the staff, in which book he may also include the substance of special and occasional instructions received from headquarters. A stout foolscap book with blotting paper bound between the leaves answers well. The book should be paged and divided into sections for (1), booking office; (2), platforms; (3), yard; (4), left luggage office; (5), parcels office; (6), lavatory, &c. In this way the orders can be kept separate relating to each section of the work. The orders should be dated and signed by the agent, and the signatures of the clerks or men whose work is affected should be taken for each order, and a written copy given to each man when the order is not posted upon a board for general inspection. This order book should be regularly kept by the agent under lock and key, except when brought out to take signatures or convict an offender.

LEGAL QUESTIONS RELATING TO PASSENGER TRAFFIC.*

Acceptance of passengers' luggage to carry—railway companies common carriers of passengers' luggage—not liable to carry luggage for excursionists—passenger can require company to label and take charge of small articles of luggage—point of acceptance or act of accepting luggage—carrying of luggage from cabs to platform—luggage stolen off platform while passenger is in refreshment room—luggage stolen from railway carriage during absence of passenger—luggage stolen after taken from cab by company's porter—transfer of luggage at joint stations—articles a passenger may not carry as luggage—modern doctrine of what constitutes personal luggage—luggage conveyed with passenger in carriage and stolen at arrival platform—luggage stolen after put out of van on platform and claimed by passenger—left luggage office—defining legal position of company as caretakers of left luggage, with cases—left luggage demanded on Sundays—passengers delayed—late trains—tickets, production on demand—passengers travelling in a higher class than warranted by their tickets—passengers booking and thereby contracting to go to one station, and alighting at another—excess fares—arrest of persons and assaults—ejection of passengers from carriages—where a company's servant exceeds his authority, the company are not held bound by his acts—personal injury—obstructing engines, carriages (trains), and meddling with signals—return tickets based upon special contract—cattle straying upon railway—accidents at level crossings—carriage of dogs—digest of bye-laws.

PASSENGERS' LUGGAGE—ACCEPTANCE.—Railway companies are common carriers of passengers' luggage, and within section 7 of the Railway and Canal Act, both by land and sea, hence it is compulsory upon companies to carry free such luggage, provided it be within the weight stipulated by the company's act. *Macrow v. Great Western*, tried in the Court of Queen's Bench, June 7, 1871, and *Cohen v. South Eastern*, tried in the Court of Appeal, February 9, 1877.

Railway companies are not liable to carry luggage for excursion passengers when the condition of the contract is, that no luggage shall be taken. An excursion ticket is based upon a special contract, and is outside the company's common law liability. It is probable that excursion passengers might even be carried at "own risk," if the two contracting parties were agreeable to such a condition.

In the case of *Munster v. South Eastern*, tried in the Court of Common Pleas, May 27, 1858, Chief Justice Cockburn held that (within the stipulated weight) passengers can require railway companies to label and accept the charge of rugs and small packages during the journey, if passengers declined to take such packages into their own charge in the carriage.

* From the Author's work on "Carrier's Law relating to Goods and Passenger Traffic on Railways, Canals and Steamships," 1883.—McCorquodale & Co

The legal question as to the point at which passengers' luggage is really accepted by the company for conveyance is full of difficulties, and this arises because the company's uniformed porter in carrying the luggage from the cab to the railway carriage in a sense takes over possession of the luggage. The conversation that takes place between the porter and the passenger may be such as amounts legally to an acceptance and insurance of the safety of the luggage by the porter on behalf of the company, the porter acting within the scope of his authority. The following two leading cases will illustrate the law on the matter:—

Agrell v. London and North Western Railway Company. Action for sixty pounds for value of a portmanteau lost at Victoria Station, Manchester. On the 6th February, 1875, plaintiff, a commercial traveller, drove to the Victoria Station at 12.20 p.m. to go to Hull by the 12.45 p.m. train. A railway porter at the entrance door took the portmanteau, and plaintiff, with a friend who was with him, walked with the porter on to the platform. The porter put down the portmanteau near the rack where the luggage labels were deposited. The porter then left, and the plaintiff after standing a short time with his friend by the portmanteau and failing to obtain the services of another porter, himself took a Hull label from the rack and put it on his portmanteau. After again trying to get a porter but without success, plaintiff and his friend went into the refreshment room, and when he returned the portmanteau was gone. Within two yards of the place was a notice—"The company will not be responsible for articles left at the station, unless deposited in the cloak room and a fee of two-pence paid on each article."

Upon appeal at the Exchequer Chamber, Baron Pollock gave a written judgment in favour of the company, of which the following is an abstract:—

Baron Pollock said—"Under these circumstances, I am of opinion that the plaintiff's portmanteau was never in the custody of the company as carriers. No act of negligence on the part of the company was proved, and if it was negligent of the outside porter who placed the portmanteau on the platform to leave it there unguarded, the plaintiff was aware of this, and might have averted all risk by staying by his portmanteau until it was properly labelled and under the charge of a porter. The liability of the company is that of a common carrier, and when once the luggage is *delivered* to the company and *received* by them to be carried, this liability extends not merely to the actual transit on the line but to the period when the luggage is being taken to or from any vehicle by which a passenger comes to or leaves the station of arrival or departure; and the only question in the present case is—Had the company ever so received the portmanteau? The company are not liable, because plaintiff affixed a Hull label to the portmanteau himself. No evidence was given as to the duty of the outside porter, but, I think, it may be fairly assumed that in the absence of any instructions, his duty was to relieve plaintiff from the burden of carrying his portmanteau into the station, and that he had performed it, when he accompanied the plaintiff, and placed his portmanteau near the spot where the luggage

is labelled. It cannot be contended that he ought to have deserted his post outside the station and kept watch over it, during the ten or fifteen minutes the plaintiff was taking his refreshment; and he could not hand it over to another porter to put in the train, because the plaintiff had not told him what was its destination. To hold that, where nothing is said on either side, because a porter takes a portmanteau from a cab he becomes charged with it, so as to make his employers from that moment common carriers of it and liable as such, although the owner of it has taken no ticket, declared no destination, promised no payment, neither given nor undertaken to give any lien, so as to create the correlative right of the carrier, and may have come to the station only to deposit his luggage in the left luggage office, would seem to me to be not only making a contract which was never made, and imposing upon railway companies a burden beyond what has hitherto fallen to common carriers. It is true that a very few words, or possibly a single word on either side might have made all the difference. Had the plaintiff on arriving said "Hull," and the porter answered "all right" and then taken the portmanteau, there would have been good grounds for contending that the porter had accepted the duty of seeing it started for Hull. Plaintiff called for an inside porter to look after the portmanteau, showing thereby that he knew it had to be delivered over for carriage. The duty of the company as common carriers would be founded on the contract entered into between them and the plaintiff, which would not *be complete until the plaintiff had taken his ticket*, but this would not in my judgment prevent their liability *attaching at an earlier time*, if it could once be shown that they had accepted the portmanteau for transit now. Although plaintiff arrived at the station twenty-five minutes before the train started, he would, I think, have been entitled to deliver over the portmanteau to a proper officer of the company, with directions to put it in transit for Hull. The existence, however, of the cloak room and notice have some bearing on the question as showing, *inter alia*, that the delivery to the outside porter did not necessarily and exclusively create a contract to carry." Tried in Court of Exchequer, Easter Term, 1875.—From "*Law Times*" Reports, vol. 84, page 184.

Bergheim v. Great Eastern Railway Company. Action for loss of a travelling bag, London to Yarmouth. Plaintiff arrived at the Shoreditch station a considerable time before the train started. He directed a porter to put his bag on the seat of a carriage. The porter in reply to a question, said the bag would be safe and that he should be there himself until the train started. Plaintiff went to the refreshment room, and on his return the bag had been stolen. The case was first tried before Justice Manisty and the jury found (1), that the carriage was a proper place in which to put the bag; (2), that the porter was acting in the scope of his employment in putting the bag into the carriage; (3), that the porter received the bag as the company's servant; (4), that no felony had been committed by the company's servants; (5), that neither plaintiff nor the company had been guilty of negligence. The judge on these findings directed judgment for the company. Plaintiff appealed.

On the appeal case Lord Justice Cotton gave a written judgment. "It has been found that neither the company nor the plaintiff was guilty of negligence. The company therefore cannot be held liable, unless they are to be held to have undertaken the liability of common carriers in respect of the bag. A common carrier is answerable for the loss of the goods entrusted to him as such, though the loss be in no way caused by any default on his part. He is considered as having contracted to insure—that is to say, to carry and deliver safely and securely the goods. The reason why the law implies that this is the contract of a common carrier is, that the carrier and his servants during carriage have exclusive control and care of the goods, and the law in order to prevent frauds imposes upon those who contract to carry goods as common carriers, the obligation to undertake to insure their safety. Chief Justice Holt in *Coggs v. Bernard*, (*Lord Ray*, 909) said—'The law charges this person (the carrier), thus entrusted to carry goods against all events but acts of God and the enemies of the King. For though the force be ever so great as if an irresistible multitude of people should rob him, nevertheless he is chargeable. Carriers might have an opportunity of undoing all persons that had any dealings with them, by combining with thieves, &c., and yet doing it in such a clandestine manner as would not be possible to be discovered. The common carrier's liability as a contract of insurance, has never been implied in respect of goods over which he had not absolute control.' Are goods put into a carriage under the control of the company to this extent? They are put into the carriage, because they may be required during the journey, or because the passenger wishes to take special care of them and to have them under his eye, or because he desires to take them away with him as soon as the train stops. They are put into the carriage at the request or with the consent of the passenger, in order that he may have some control over them during the transit. While the train is in motion the company can exercise no control over the goods, as distinct from the control they have over the train. There may be in the same carriage with the owner of the goods, other persons who, by reason of the passenger's own negligence, may be tempted or enabled to injure the goods or deprive the owner of them. The real question is, whether as regards the particular bag there was an implied contract of insurance. We think there is no sufficient ground upon which a court can properly make a presumption, that the company carried it under a liability or implied contract to carry it safely at all hazards. The company undertake to carry the passenger; they equally undertake to carry his luggage, which, with their consent is placed with him in the carriage. But they are not gratuitous carriers of those goods, as they receive them into their carriages in consideration of the passenger paying his fare. The company therefore must, according to ordinary principles, be held liable for the loss or injury caused by *their negligence* in respect of the luggage as carriers for hire and contractors to carry. The company have, in fact, the same liability with respect to the carriage of luggage as they have with respect to the carriage of the passenger himself. We are of opinion this court is not bound by the

authorities (*Butcher v. South Western*; *Richards v. London, Brighton and South Coast*) to decide that the company are liable, if, in our opinion, the company cannot on principle be held to have undertaken the liability of common carriers in respect of plaintiff's bag—that is, to have contracted to become insurers of it. For the reasons stated, we are of opinion that they did not so contract, and that the judgment in favour of the company should be affirmed." Lord Justice Bramwell and Lord Justice Brett concurred. Tried in Court of Appeal, November 21 and 22, 1877, and January 14, 1878.—*From "Law Times" Reports, vol. 38, page 161.*

In *Lovell v. London, Chatham and Dover Company* (1876), tried in the Court of Queen's Bench, February 7, 1876. A lady arrived at the station with a despatch box and other luggage, but her train did not start for twenty-five minutes. A company's porter met the cab at the station entrance and put the luggage on a truck, and said if plaintiff would get her ticket he would label the luggage, and that the ticket office would be open in two minutes. On the plaintiff getting her ticket and going to the platform the despatch box was gone. Justice Blackburn said—"The question is, had the porter received the luggage as the servant of the company and at the commencement of the journey? I think that he had. I do not see how any railway company could carry on its business as a carrier of passengers if this is not to be considered as the beginning of the journey. The railway company have said, as they are entitled to say, that luggage is not to be deposited at their risk except in accordance with the conditions they impose and on payment of a fee, but they do not refer to a case of this kind; and though luggage is not to be deposited it must be kept by the company's servants while the passenger gets his ticket." Judgment against the company.

The legal delivery of luggage at junctions and joint stations from one company to another company is very complex, and would occupy too much space to enter upon here. The leading cases are *Midland v. Bromley* (1856); *Kent v. Midland* (1874); *Hooper v. London and North Western* (1880); also *Foulkes v. Metropolitan District* (1880), in relation to a through contract.

ARTICLES PASSENGERS DESIRED TO CARRY AS LUGGAGE HELD TO BE MERCHANDISE, AND THE COMPANY HELD NOT LIABLE FOR THEIR LOSS.

CASE.			
Ivory handles for knives, -	-	<i>Shepherd v. G. N.</i> , -	- 1852.
Artists' sketches, -	-	<i>Mylton v. Mid.</i> , -	- 1859.
Samples of perfumery, -	-	<i>Catrill v. L. & N. W.</i> , -	- 1861.
Watches, -	-	<i>Keys v. Belfast & B.</i> , -	- 1861.
Groceries, -	-	<i>Atkinson v. G. S. & W.</i> , -	- 1861.
Travellers' patterns, -	-	<i>Dunn v. C. & H.</i> , -	- 1862.
Attorneys' deeds and papers—	}	<i>Phelps v. L. & N. W.</i> , -	- 1865.
bank notes, -			
Rocking horse, -	-	<i>Hudston v. Mid.</i> , -	- 1869.
Sheets, blankets and quilts, -	-	<i>Macrow v. G. W.</i> , -	- 1871.

In *Shepherd v. Great Northern*, tried in Court of Exchequer, Trinity Term, 1852. Baron Parke said—"There being *no special contract* the company were bound to carry the plaintiff and his *luggage*, which term, according to the true modern doctrine on the subject, comprises clothing and such articles as a traveller usually carries with him for his personal convenience, perhaps even a small present or a book for the journey, but certainly not merchandise or materials bought for the purpose of being manufactured and sold for a profit."

PASSENGERS' LUGGAGE—DELIVERY.—In *Richards v. London, Brighton and South Coast*, tried in the Court of Common Pleas, May 7, 1849. Mrs. Richards was an invalid, and her dressing case, value one hundred and fifty pounds, was placed in the carriage under her feet. On arrival at London, Mrs. Richards was lifted into a cab, drawn up beside the platform, and her luggage carried by the company's servants from the carriage to the cab. On arrival at her destination, Mrs. Richards missed the dressing case, and it was never found. Justice Williams said—"It seems to me that at the time of the loss, the dressing case was in the custody of the company as carriers. I must admit, I think, that before the dressing case was lost the transit described in the declaration had come to an end. I do not mean to give an opinion whether the company were obliged to do more than deliver the luggage on the platform; but I think if they oblige passengers by allowing their servants to carry luggage to coaches, their liability continues." Judgment against company.

In *Butcher v. London and South Western*, tried before the Chief Justice, May, 1855, plaintiff took his carpet bag, value four hundred pounds, with him in the carriage. At London Bridge station, while standing on the platform, a company's porter asked plaintiff if he wanted a cab and took from him the carpet bag, which he put on the footboard of a cab outside the station and returned for a box in the van. The cab drove off and neither carpet bag nor money could afterwards be recovered. On the appeal case the Chief Justice said—"The case of *Richards v. Brighton Company* governed this case, which established that the delivery of the passenger and luggage must be in the ordinary mode on the arrival of a train. Parties might accept something short of what was fixed by the contract. Whether or no there was a perfect delivery to the plaintiff as he stood on the platform with his carpet bag in his hand was a question of fact for the jury. The company had not shown what they did with the bag. An officer of the company took charge of the bag from the plaintiff and nobody knew anything more about it. The learned judges all thought there was evidence that it was right it should go before the jury and that the verdict therefore ought to stand." Judgment against the company.

In *Patcheider v. Great Western*, tried in the Court of Exchequer, January 21, 1878, there were six boxes of luggage. On arrival at Paddington the lady's maid saw the six boxes taken out of the van and placed on the platform. She went for the station hotel porter and told him to take the boxes to the hotel, but when the truck con-

taining the luggage arrived only five boxes were upon it. Baron Cleasby said—"I think until the passenger has the opportunity of taking away his luggage it remains in the custody of the company. As to the law I should have no hesitation in saying that their (the company's) throwing it out upon the platform, mixed as it might be with other luggage, was not a delivery or discharge of the company's obligation. Can there be any other question than whether it was taken away before anything had taken place in the way of delivery except placing it upon the platform?" Judgment against the company.

If the plan of metal checks we advocate under the chapter on "passengers' luggage" were adopted, the act of giving up the duplicate check would mark the point of delivery.

LEFT LUGGAGE.—When luggage is deposited at a cloak room, the company are in no sense carriers. They are simply caretakers, the transaction is a special contract made in accordance with the notice on the "ticket." That notice should be brought home to the person who deposits the luggage, and a copy, in large type, exhibited in a conspicuous place at the cloak room. But even if the notice is not brought home to a person who may have suffered a loss, the company cannot be held responsible as insurers, but only as special warehousemen to take reasonable and ordinary care.

In *Anderson v. North Eastern* (1861), a case of traveller's patterns was lost out of a cloak room, and it took fifteen days to replace them. The company were sued as *warehousemen* for fifty-seven pounds for the patterns, the case, salary, and expenses. Chief Baron Pollock held the company to be bailees (not exactly warehousemen) "responsible for loss, to the amount (twenty pounds) of the value of the patterns, but there is no undertaking to be answerable beyond the value of the goods, except by special contract." Consequential damages are not recoverable.

In *Van Toll v. South Eastern* (1862), a bag containing jewellery, value twenty pounds, had been delivered to a wrong person from a cloak room in mistake, and when recovered the jewellery was missing. Chief Justice Erle held the company did not receive the bag as warehousemen according to the usual meaning of the word. "In a contract for bailment (taking charge) the bailee may impose whatever terms he chooses if he gives notice of them and the bailor (depositor) has the means of knowing them, and if he chooses to make the bailment, he is bound by them. The reasonableness of the terms is an irrelevant inquiry, the parties being at liberty to choose their own terms." The company's notice as to parcels over ten pounds value was in large letters in the cloak room, and the same notice was printed on the ticket. Judgment for company.

In *Stallard v. Great Western* (1862), plaintiff could not get his luggage out of the cloak room on a Sunday night without forty minutes delay, whereby he lost the train to Sheffield. Chief Justice Cockburn held—"It is no part of the terms of the contract (notice on ticket) that the luggage shall *not* be given up on a Sunday; on the

contrary, it is to be given up on the production of the ticket." Company held liable for damages.

In *Pepper v. South Eastern* (1868), luggage left at cloak room Folkestone was sent to London and unreasonably delayed. The company were held not liable, there being no wilful act.

In *Harris v. Great Western* (1876), sixty pounds was claimed for loss of a portmanteau and box accepted as left luggage and ticket issued, but deposited in the vestibule adjoining cloak room, and from thence stolen. Judge Blackburn held the company protected by their notice, and because the luggage being in value over five pounds was not so declared.

In *Parker v. South Eastern* (1877), twenty-four pounds was claimed for a bag lost from Charing Cross cloak room. Lord Bramwell, in Court of Appeal, held the company protected by their notice, and the plaintiff was in point of law bound by the terms (of notice); and that it would not be right or just or reasonable that he should be allowed to say that he was not aware of the conditions because he had not read them. He was of opinion that if the plaintiff knew there was printed matter on the ticket he was as much bound by the terms it contained as if he had read them or as if the porter had called his attention to them.

PASSENGERS DELAYED—LATE TRAINS.—In cases of delay to passengers the company's time table and the accompanying notices to the public constitute the foundation of the contract of carriage. If a train is advertised and does not start (except prevented by the act of God or the Queen's enemies) the traveller can hire either a special train or a post chaise, and recover the cost from the company. If a traveller is overcarried from causes beyond his own control the company are liable for damages.

If the company give notice on public time tables as to not guaranteeing the punctuality of their trains, they can only be held liable for damages in the event of the traveller being able to prove negligence. The company are not responsible when trains are prevented from making the journey owing to floods and snow.

PRODUCTION OF TICKETS ON DEMAND.—In *Woodward v. Eastern Counties* (1861), Justice Wightman held that a season ticket holder must show his ticket upon demand, and that not having to deliver it up while current, did not relieve him of the obligation of showing it both under the bye-law and the special condition signed on the issue of the ticket. (*Saunders v. South Eastern Railway*, tried in the Court of Queen's Bench, May 28 and July 5, 1880.)

The right of railway companies to demand to see ordinary tickets under their bye-laws, seems never to have been questioned in the superior courts.

PASSENGERS TRAVELLING IN A HIGHER CLASS CARRIAGE THAN WARRANTED BY THEIR TICKETS.—In *Bentham v. Hoyle, L. & Y.* (1878), Lord Chief Justice Cockburn held that a "fraudulent

intention" must be shown before a penalty under a bye-law can be recovered from a person travelling in a higher class carriage than warranted by their ticket, and that any bye-law under which a penalty might be recovered, without showing a *fraudulent* intention, would be repugnant to the general Act of Parliament. This judgment was upheld in the case of *Dyson v. London and North Western*, tried in the Court of Queen's Bench, March 29, 1881.

PASSENGERS BOOKING, AND THEREBY CONTRACTING TO GO TO ONE STATION AND WILFULLY LEAVING THE TRAIN AT AN INTERMEDIATE STATION TO EVADE PAYMENT OF THE PROPER FARE.—The legal decisions in these cases vary. In *Queen v. Frere* (1855), in the Queen's Bench, the company failed to recover two shillings excess. Defendant took a ticket from Norwich to Colchester for five shillings, and left the train at Diss, nineteen miles short of Colchester, the fare being seven shillings, Colchester to Diss.

Where a passenger takes a ticket for a station and does not travel to that station, but leaves the train at an intermediate station, because the fare to the farther station is less than to the intermediate station, the company cannot prevent the passenger leaving at the intermediate station. In *Great Northern v. Nisbet*, the passenger took a ticket to Morpeth and only travelled to Newcastle, but the ticket having a special notice on it the court held that Nisbet *had contracted specially* to go to Morpeth, hence the company recovered the sixteen shillings and threepence, the difference in the fare.

EXCESS FARES.—Where a passenger has travelled without having paid his fare he is not liable to pay the whole fare from the starting station of the train, unless it can be shown there was a *deliberate intention to defraud*. In *Dearden (L. & Y.) v. Townsend*, Justice Mellor said—"I do not think it ever was intended to give the company the power to say that a man who is travelling without a ticket ten miles (who over-travelled beyond the station mentioned on the ticket), but who travels honestly and without intent to evade payment, is hereby to become liable to the penal consequences of forfeiting the fare for one hundred or two hundred miles."

In *Great Western v. Pocock* (1879), the passenger on the return journey from West Drayton on a return ticket travelled to Paddington, whereas the ticket was only available to Westbourne Park. The defendant's plea was, the price of the return ticket was the same out from Westbourne Park and back as out from Paddington and back. Baron Huddleston, however, held that he must pay the threepence excess.

In *London, Brighton and South Coast v. Watson* (1879), Lord Justice Bramwell, in the Court of Appeal, decided that the fare from the starting place of the train, irrespective of where the passenger got into the train, could not be recovered either as a debt or as a penalty.

In *Saunders v. South Eastern*, tried May 28 and July 5, 1880, in Court of Queen's Bench, Chief Justice Cockburn decided that

the company's bye-law setting forth that a passenger "shall be required to pay the fare from the station whence the train originally started to the end of the journey" was *ultra vires* in respect to a season ticket holder, who had his ticket with him but refused to produce it.

RETURN TICKETS ARE BASED UPON A SPECIAL CONTRACT.—In issuing a return ticket—ordinary, excursion, or tourist—at less than the two ordinary single fares, the transaction between the company and the purchaser is legally a special contract. Thus any reasonable condition as to a particular date, time, or train on the outward or return journey may become a condition of the contract, but the condition must, by notice or otherwise, be brought home to the traveller. *Menzies v. Highland Railway*, tried in Court of Session, June 8, 1878.

ARREST OF PERSONS AND ASSAULTS.—Railway companies are liable for the acts of their servants if the act is in execution of the authority given by the company or within the scope of the servant's employment.

In *Chilton v. London and Croydon* (1847), a passenger from Sydenham to London lost his ticket and he offered to pay from Sydenham, but the fare from Croydon, the starting place of the train, was demanded. On his refusal he was locked up in a police station for twelve hours. The court held that the power of apprehending does not apply to the case of a penalty imposed by a bye-law, and it was clear that the sum demanded of the plaintiff was a fare.

In *Roe v. B. L. and C. J.* (1851), plaintiff, owing to incorrect information given by a company's clerk, travelled by a wrong train from Bangor to Chester on a return excursion ticket. At Chester two shillings and sixpence excess was demanded, and on his refusing to pay, the superintendent and a porter took him into custody and detained him. On the first trial he got fifty pounds damages. On appeal, Chief Baron Pollock said—"The principle applicable to principal and agent, and master and servant is, that the master is not liable for the *tortuous* act of the servant, unless he has either given him express directions or an implied authority to do the act, and the company are therefore not liable in this case."

In *East Coast v. Broom* (1851), a passenger refused to give up his ticket and was removed by force from the carriage, and then he assaulted the ticket collector. He was detained at the Stratford police station. On appeal the court held that, in case the action might be "the act (of arrest) not done with the knowledge of the company in the first instance, might have been ratified by them; but we are of opinion there was no evidence of such ratification in this case." Judgment for company.

In *Tollemache v. London and South Western* (1856), plaintiff refused to give up his ticket at Kingston, and was detained. Baron Martin held that in the company's bye-laws there was not a word which authorises the imprisonment of a passenger by the company for

one-hundredth part of a minute for any purpose whatever. Judgment against company.

In *Goff v. Great Northern* (1861), a passenger, by an innocent mistake, travelled on a return ticket out of date, and having no money to pay the fare was imprisoned for six hours. Justice Blackburn held that a railway company, though a corporation, is liable in an action for false imprisonment if that imprisonment be committed by the authority of the company, and it is not necessary that the authority should be under seal. The verdict of the court below for fifty pounds damages was confirmed.

In *Seymour v. Greenwood* (1861), an omnibus conductor dragged a drunken passenger out of his omnibus with unnecessary violence, and threw him down in the middle of the street, and a cab passing at the time injured the passenger. The carrier was held liable because his conductor acted with brutality, and did not exercise due care and consideration in removing the drunken man.

In *Barry v. Midland Great Western* (1865), plaintiff had been detained some time on his journey owing to a train having broken down, and on arrival in Dublin he refused to give up his ticket or pay his fare unless he was told the cause of the detention. He was arrested and locked up in the police station for the night. Next morning he was discharged by the magistrate with a caution, when he gave up his ticket. On the trial for false arrest the Chief Baron directed a verdict for the company.

In *Poulton v. London and South Western* (1867), a man and a horse had returned to Romsey station from a show—the horse was to be carried free, but arrived unentered, and the Romsey station master demanded six shillings and tenpence carriage, and detained the man half-an-hour until reply to a telegram arrived. On appeal, Justice Blackburn held that on the part of the station master it was an act out of the scope of his authority, and for which the company would be no more responsible than if he had committed an assault or done any other act which the company never authorised him to do. Judgment for company.

In *Edwards v. London and North Western* (1870), Holmes, a foreman porter, saw plaintiff, a company's policeman, removing boards from the Canada Dock station one evening, and thinking he was stealing them gave plaintiff into custody. The magistrates discharged plaintiff and shortly after the company dismissed him. On the first trial for false arrest the jury gave plaintiff one hundred pounds damages. On the appeal, Justice Keating gave judgment for the company, as Holmes was not acting within the scope of his authority.

In *Allen v. London and South Western* (1870), a booking clerk gave plaintiff in change a two sous coin for a penny. Plaintiff refused it, and the clerk declined to change it, so plaintiff reached over the counter and attempted to put his hand into the bowl of the till containing copper coins. He was given in charge and locked up in a police station all night. The magistrates dismissed the case. On the final appeal case Justice Blackburn held, "it is quite clear that there

was no evidence of an express authority by the company to arrest plaintiff." Judgment for company.

In *Van Den Eynde v. Utster* (1871), plaintiff was in the booking office at Lisburn station, and the booking clerk being called out for a moment thought, on his return, plaintiff had a ticket in his hand which he had stolen. Plaintiff was detained and searched, but no ticket was found. On the first trial plaintiff got a verdict for seventy-five pounds. On the final appeal the majority of the court held that there was evidence that the plaintiff was detained by the company's servants upon the plea that he was attempting to travel by means of a stolen ticket without paying his fare, and that the detention of the plaintiff under such circumstances was within the scope of the official's authority, and that the company were consequently liable for their acts.

In *Bayley v. Manchester, Sheffield and Lincolnshire* (1872), a porter being under the impression plaintiff was in a wrong carriage, pulled him out as the train was about starting, and plaintiff was roughly handled and injured. The porter on the first trial said he had no authority to do what he did, but the jury disbelieved him, and gave a verdict for plaintiff, which on appeal, was confirmed.

In *Moore v. Metropolitan* (1872), a passenger with a return ticket, on the return journey got out at a station one short of the actual destination, and he refused to pay twopence excess unless he got a receipt. The inspector gave plaintiff in charge of a policeman who detained him at the police station until he got bail. On appeal, Justice Blackburn held that the inspector was acting within the scope of his authority, and the company were liable for false imprisonment. The magistrates on the first trial had dismissed the charge.

In *Collier v. Dublin, Wicklow and Wexford* (1873), plaintiff's wife arrived at Booterstown station seven minutes before the arrival of the last train that night to Dublin. A porter opened a carriage but it being a smoking compartment she refused to enter, and the train went on without her. She would not leave the station, and the station master having to secure the station house for the night locked her up all night. It appeared plaintiff was from home the particular night, so the court held that he had suffered no deprivation of her services, and that damages could not be recovered.

In *Kirkstall Brewery Company v. Furness* (1874), Chief Justice Cockburn said—"I think it is impossible to say that a man who has the sole management of a railway station, and had authority to cause a person to be apprehended, if he had 'reasonable and probable cause' to suppose that a felony had been committed could not have authority to give instructions to the police, and could not make such communications as would be admissible in evidence, just as if they were made by the principals."

In *Edwards v. Midland* (1880), the company's detective officer arrested a porter on suspicion of stealing a parcel of watches. The magistrates dismissed the case. On appeal, Justice Fry held that the company's detective was acting within the scope of his authority, and the company were responsible for his acts. Judgment against the company.

EJECTION OF PASSENGERS FROM CARRIAGES, OR IN OTHER MANNER, COMMITTING ASSAULTS.—In *Eastern Counties v. Broom* (1851), plaintiff refused to give up his ticket or pay his fare, and was removed by force from the carriage. The plaintiff obtained a verdict for fifty pounds for assault, which, however, on appeal was reversed.

In *Glover v. London and South Western* (1867), plaintiff was travelling without a ticket and refused to pay his fare and was forcibly removed. In an action for assault the jury gave him damages, twenty shillings; but for his race glass, which was lost during the struggle, the court on appeal refused to hold the company liable.

In *McCarthy v. Dublin, Wicklow and Wexford* (1870), plaintiff got into a train at one station beyond the station from which his return ticket was available. He was warned not to get in. He was ejected from the carriage by the company's servants. Chief Justice Monaghan on appeal said, "we think, under the circumstances, the company's servants were justified in removing the plaintiff from the carriage where he had no right to be, and where, in fact, he was a trespasser."

In *Menzies v. Highland* (1878), plaintiff persisted in travelling on a Sunday with a return ticket not available, and refusing to pay his fare, was forcibly removed from the carriage. He claimed fifty pounds for the assault. Lord Ormidale, in the Court of Session, held that plaintiff refusing to leave the carriage was, by the Railways Clauses Act, such a hindrance to the company in the use of the railway as entitled them summarily to interfere to "remove such hindrance." Judgment for company.

WHERE A COMPANY'S SERVANT EXCEEDS HIS AUTHORITY THE COMPANY ARE NOT HELD BOUND BY HIS ACTS.—In *Lumsden v. London and South Western* (1867), plaintiff was waiting for a train at Clapham Junction and had a friendly sparring match with the railway policeman. The policeman got the worst of it, lost his temper, and gave plaintiff into custody for obstructing him in his duty and assaulting him. The magistrates dismissed the assault case, and afterwards Baron Bramwell held the company not liable for the act of their policeman as to the arrest.

See also the preceding cases:—*Roe v. B. L. and C. J., Poulton v. London and South Western, Edwards v. London and North Western, Allen v. London and South Western.*

Our space does not admit of going into legal questions as to personal injury. A station agent should never forget that it is his business, and the business of all the company's servants, to protect passengers from personal injury when upon the stations, and when entering or alighting from carriages. There should be no pit-falls about a station, and there ought to be lamps which should be lighted after nightfall, at all dangerous places.

OBSTRUCTING ENGINES, CARRIAGES (TRAINS) AND MEDDLING WITH SIGNALS.—Any stranger, that is to say, one of the public, altering or interfering with signals or stopping trains between stations, is liable to conviction under the 24 and 25 Vic., cap. 97, section 36,

for a misdemeanour for obstructing engines and carriages upon the railway. *Queen v. Hadfield*, tried on appeal, June 4, 1870, *Queen v. Hardy*, tried as a Crown case, January 21, 1871.

CATTLE STRAYING ON TO RAILWAY.—When cattle stray on to the line it should be ascertained how they got upon the line, to prevent others using the same access. If it can be shown that the fault rested with the company's fence, the company will then be held liable should the cattle have been killed. However, there is a proviso, for even if the company's fence is insecure, and the cattle belong to a person not the occupier of the land next adjoining the railway, then the company are not liable. The reason is, that the company legally have only to fence against the cattle belonging to the occupiers of the land immediately adjoining the railway, and not against cattle *belonging to other persons* that may, as wrong-doers, stray into land adjoining the railway and thence upon the railway. Cattle found straying upon the railway, not being cattle escaped from railway waggons, should be sent to the pound or a livery stable. Cattle found killed on line, if only recently killed, should be immediately bled from an incision in the throat, so that some parts of the carcase may be saleable for food.

ACCIDENTS AT LEVEL CROSSINGS.—The company's liability for accidents at level crossings depends upon the facts of each case, according as the jury may decide whether there was any negligence on the company's part. The court cannot decide whether a company is to keep a gatekeeper at this or that place, but if a crossing is particularly dangerous from being on a curve or otherwise and an accident occurs, damages may be recovered from a company, because there was no company's servant there to warn persons. Very careful men should be put at level crossings when a gateman may be found to be necessary.

CARRIAGE OF DOGS.—In respect to the carriage of dogs railway companies are only *special* carriers of dogs, and therefore can make their own conditions (within reasonable limits) as to the carriage, but these conditions must be brought to the knowledge of the person before sending the dog.

DIGEST OF ORDINARY BYE-LAWS.

1. Passengers not to enter carriages or travel without tickets. Passengers to show and give up tickets. Persons omitting are required to pay fare from place where the train commenced its journey. (See under Excess Fares.)
2. Penalty two pounds for using tickets out of date.
3. Using tickets to other than stations available, to pay excess.
4. Penalty two pounds for wilfully defacing tickets.
5. Penalty two pounds for selling half return tickets, and penalty two pounds for using such purchased tickets, besides having to pay the single fare.

6. Company not liable when no room in train. Preference according to the priority in the issue of numbered tickets. Fare to be refunded if demanded before train leaves.

7. Penalty two pounds for smoking in carriages or premises not authorised for that purpose, and persons to be removed.

8. Penalty two pounds, and to pay excess, for travelling unauthorised in a superior train or carriage to that on ticket.

9. Penalty two pounds, and subject to removal, in respect to persons intoxicated, or using obscene and abusive language, or committing nuisance, or writing obscene words in stations or carriages.

10. Penalty five pounds for wilfully cutting or tearing carriage linings, window straps or curtains, removing or defacing number plate, breaking or scratching windows, and to pay cost of damage.

11. Penalty two pounds, and subject to removal, for travelling on roof, steps, footboard of carriage, or on an engine.

12. Penalty two pounds for attempting to enter or leave carriages when in motion.

13. Penalty two pounds for persisting in entering a compartment already full of passengers.

14. Penalty two pounds for taking dogs into passenger compartments.

15. Penalty five pounds for taking *loaded* fire-arms into carriages, waggons or trucks.

16. Penalty two pounds and forfeiture of fare (if paid) for travelling while suffering from an infectious disease. Any person travelling in charge of such invalid also liable to two pounds penalty.

17. Penalty two pounds, recoverable from any driver, conductor of omnibus, cab, or carriage or other vehicle, who, while inside the station yard, refuses to obey the reasonable instructions of company's officials.

HEALTH RESORTS AND SANITORIUM FOR RAILWAY CLERKS.

A YEARLY holiday for each clerk should not be optional but compulsory, because great inconvenience is often experienced when clerks are absent from illness which might have been avoided if relaxation had been taken at the proper season. The health of an army is necessary, that the men may be able to fight, and so in like manner with clerks, that they may be able to work, which they cannot always do unless free from sickness. In banking establishments it is considered wise to put a second man to occasionally take up a clerk's work, as it furnishes an additional guarantee of his honesty. This is because many instances of fraud have been discovered during the absence of bank clerks who have carried on nefarious practices, and the delicate machinery has broken down during their temporary absence. It should be a fixed rule that every clerk should take a yearly holiday for a fortnight for the benefit of his health. On no account, however, should the leave of absence be given to be spent at home prowling about, but it should be insisted upon, that the clerk should leave his home or town residence for a complete change of air. It would be an easy matter at a number of health resorts, that are accessible by railway, to establish railway clerks' boarding houses, where clerks with or without their wives, or a female relative, could resort. It would be better for the married men to be accompanied by their wives, as female society would contribute to good order in respect to odd effervescent young bachelors. Such boarding houses could be easily organised on the co-operative system, and the charges restricted to something like the actual cost price, like an officers' mess in the army. The wives of some of the staff at each place of resort might get free residence as part payment for caring and management. We would not advocate a large building that would involve costly management and a staff of servants. Small houses that would accommodate about a dozen persons to sleep, that one guard's wife and a servant or two could in the summer attend to and keep clean. Where two or more such small houses might be necessary, a dining room and cook house might be erected, or hired near at hand, where, at fixed hours, the visitors could take breakfast, dinner, tea and supper. This dining hall could be worked in the summer by a contractor or by a separate staff, and closed during the off season. If the clerks of several companies provided such places, a system of exchanges would follow as a

At Sherwood House, Llandudno, the Manchester Branch of the Young Men's Christian Association have a seaside home for commercial young men needing rest and recreation, and the charges are as follows:—

TERMS FOR BOARD, LODGING, AND ATTENDANCE.—21s. per week; 5s. for one day; 10s. for two days; 18s. 6d. for three days; 16s. 6d. for four days; 20s. for five days; and 21s. for six or seven days, *except* during July, August, and September, when the terms will be 25s. per week; 5s. for one day; 10s. for two days; 15s. for three days; 18s. for four days; 22s. 6d. for five days; and 25s. for six or seven days. The day of arrival will be counted, but not the day of departure. From October 1 to May 1, private apartments can be had at Sherwood House on easy terms.

PROVISION CO-OPERATIVE CLUBS.

THIS is an era of co-operation in respect to persons uniting together for mutual advantage, but still the advantages to be obtained by co-operation are not yet fully developed. If any twelve men can agree together for one of their number to buy and distribute, at the wholesale price, a dozen sacks of potatoes or other goods, each man will get his sack at less price than if he purchased separately. Unfortunately for many persons this plan is checked (1), by a want of good faith and confidence between one man and another man; (2), by an absence of a large stock of goods affording choice and selection; (3), by cash payment; (4), by inexperience in selecting and buying goods wholesale, and ignorance as to the best markets in which to purchase.

There is also another difficulty in carrying out co-operative stores and that is, the cost of management and rent. If this cost has to be included in the venture, then the store expenses are almost on a par with a regular shop, and the selling price on the goods cannot be much less than what the regular shopkeepers charge. Honesty is another vital matter. If the members, and particularly the store-keeper, secretary, committee, or other controlling influence, are not scrupulously honest, the voluntary organisation will soon crumble to pieces. The men combine for a *mutual* benefit, and if the *mutuality* by jobbery is confined to the governing few, the contributing many will conceive the concern a failure, and fall away from the compact.

Quality in the articles sold is another vital question. However low the price in a co-operative store may be, goods passing under the same name can always be purchased at third rate shops at the same price. Here is where the test of quality comes to bear, and unless the quality of the goods is rigidly kept up, no co-operative store can succeed.

Having these principles in view some six years ago, we started a clerks' and porters' provision club, and it has prospered beyond expectation. A small space is boarded off at the end of a goods shed, and provided with a lock and key. The members at the commencement subscribed one shilling per week for five weeks to constitute a five shillings share each. Having thus gathered ten pounds capital, in this way a start was made. A foreman with some little knowledge of the grocery and provision retail trade was selected, and allowed to attend to the store for two or three hours on Friday and Saturday mornings, and no goods are given out at other times. On a Wednesday the members are asked to give in a list of what goods they will require on the Friday, and these lists are summarised, and only the quantity is purchased which has been ordered, except in the case of tea. We advise the keeping of little or no stock, and to let the

requirements of each week be dealt with separately. The keeping of stock involves complicated accounts, and prevents an estimate being made week by week, and lot by lot, as to the progress of the club. It also facilitates a check upon the purchase of each lot of goods, so that one purchase is not run into another purchase. *We consider the secret of the success of this club has been the buying of no more than the week's sales at the one time, and checking the weight of each lot sold with the weight purchased.* Another element of success has been the giving of the goods to the purchasers at almost the wholesale price, and not postponing the rebate or dividend for one, two or three months. The only additional price over the wholesale purchasing price put upon the goods to cover possible loss is as follows:—

Tea, 1d. per lb.; butter, $\frac{1}{2}$ d. per lb.; bacon, $\frac{1}{2}$ d. per lb.; Eggs, $\frac{1}{2}$ d. per dozen; flour, 1d. per 14 lbs.; Sugar, $\frac{1}{2}$ d. per lb.; potatoes, $\frac{1}{2}$ d. per 14 lbs.; coal, cost price.

This small increase has proved sufficient to meet all carriage, paper bags and contingencies, and to admit of paying ten per cent. upon the share capital, and an average of tenpence to one shilling in the pound sterling rebate upon purchases. The first year no rebate on purchases was given as more capital was required, and the five shillings was nominally increased to ten shillings per share, so that any man leaving the club now receives ten shillings for the five shillings he subscribed, and new members subscribe ten shillings per share. The foreman acting as storekeeper receives no payment, and there is no rent to pay for premises. The station cashier keeps the sale sheets and cash book, and collects the cash from the men. He is paid five shillings per week, and the accounts clerk who audits the accounts each half year is paid ten shillings for each audit. A banking account is kept, and all money as collected is paid into this account, and everything is paid by cheque, and we sign the cheques. The cashier is guaranteed in the guarantee society and the club pays the premium.

The tea is often purchased in bond. The butter is bought at Cork. The bacon, sugar and flour are bought from wholesale houses in Dublin. The potatoes and eggs are bought at inland Irish market towns at wholesale prices. The coal is bought in not less than one ton lots in bags and divided up and delivered to the purchasers' homes by the coal merchant.

In addition to these articles of consumption, if the men want boots, great coats, watches or anything else, samples and prices are obtained from wholesale houses, and probably twenty or thirty men put down their names for the particular article. They then pay to the cashier one shilling or two shillings per week, and as soon as half or two-thirds of the money is collected, the goods are ordered according to the sample and given out to the purchasers, and the weekly payments continued until all is paid. No profits are added to these special and occasional purchases.

The credit given is for one week, and the goods obtained one Friday must be paid for the next Friday, or further issue of goods to the defaulter is at once stopped. This inculcates provident habits and the men are kept out of the hands of small shopkeepers, who first

allow credit, and when the customer cannot pay up, palm off inferior goods upon him.

The men say the club is as good as two shillings or three shillings a week extra pay, according to the number of family and amount of goods purchased. Some of the men have one or two single porters as lodgers, and goods for the lodgers' use are purchased by the keeper of the house. The men are not allowed to get goods for their friends outside the company's service, and if a man is found getting above an average quantity the matter is questioned.

The following statement shows the sales over six years, and the sales for 1888, it will be observed, amounted to one thousand six hundred and nineteen pounds, with an average of forty-two members—

STATEMENT OF SALES.

WEIGHTS.

Years.	Bacon. Lbs.	Coal. Tons.	Potatoes Stones of 14 lbs.	Butter. Lbs.	Eggs. Dozens	Flour. Stones of 14 lbs.	Tea. Lbs.	Sugar. Lbs.	Actual No. of Members each year.
1879 -	8,983	111	8,453	5,587	1,790	794	1,423	6,161	49
1880 -	7,554	80	2,889	5,235	1,742	1,080	1,603	8,249	37
1881 -	7,648	66	2,430	6,879	2,676	1,020	2,066	8,558	40
1882 -	7,764	72	2,163	6,460	3,716	929	1,944	10,081	33
1883 -	10,175	72	2,835	8,552	4,297	1,109	2,300	11,115	52
1884 -	11,836	66	1,882	8,619	3,505	841	2,277	11,156	45
	53,955	467	15,652	41,332	17,726	5,773	11,553	55,270	

MONEY.

Year.	Bacon.	Coal.	Potatoes	Butter.	Eggs.	Flour.	Tea.	Sugar.	TOTAL.	Amount of Capital each year.
	£	£	£	£	£	£	£	£	£	£
1879	189	82	102	266	63	88	140	79	1,018	25
1880	176	61	86	304	74	124	167	105	1,097	19
1881	226	56	54	372	112	116	207	104	1,247	20
1882	247	61	50	362	165	99	200	126	1,310	17
1883	321	66	86	475	193	110	231	137	1,619	26
1884	302	54	39	468	160	78	218	114	1,433	23
	1,461	380	417	2,247	767	615	1,172	665	7,724	

TREATMENT OF PERSONS INJURED BY RAILWAY ACCIDENTS.

IMMEDIATE STEPS TO BE TAKEN.

In all cases of railway accidents, prevent, as far as possible, the presence of idlers and officious persons, and all crowding about the injured parties.

CONCUSSION OF THE BRAIN.

This is known by the person being insensible, or nearly so, and having a weak and somewhat quick pulse, cool skin, and feeble breathing. Place the patient on his back, with his head slightly raised. Loosen the stock or neckcloth—keep him quiet, and give no stimulants. If the skin remains long cold, apply heat to the feet and limbs, and when he is to be removed, lay him on a board, or flat piece of wood, if that is at hand, and carry him as much as possible in the horizontal position.

FRACTURE OF THE SKULL.

If the bones of the head are evidently driven inwards, and the surface of the body is warm, keep the head *high*. In other respects adopt the same treatment as for concussion.

BRUISES AND WOUNDS, WITH TEARING AND SEPARATION OF THE SOFT PARTS.

Remove, as far as possible, all mud and dirt from the wound, by washing it with a sponge or soft rag dipped in cold water. Then replace the torn parts as well as can be done. Apply over the wound two or three folds of linen or cotton rag (the first is preferable), soaked in cold water, and keep them in position by a bandage or handkerchief rolled lightly round the limb.

WOUNDS WHERE THERE IS BLEEDING.

If the blood is dark-coloured, and flows in a continuous stream, it is easily arrested by placing over the bleeding point a piece of linen about an inch long and half an inch thick, and securing it to the part by a handkerchief or bandage, tied moderately tight. Until this is obtained, the finger must be held upon the bleeding point. If the blood is red, and comes in jets, the above may still be tried, but the bandage must be tied considerably tighter. If this fails to stop the bleeding, a handkerchief must then be passed twice round the limb *above* the wound, and a rack-pin put beneath one of the turns, and twisted till the bleeding stops. One end of the rack-pin is then pushed beneath the other turn of the handkerchief to keep it from untwisting, and thus

prevent the handkerchief becoming loose. These measures will be still more effectual if the following directions are attended to. If the wound is situated in any part of the leg below the knee, a large pad of linen, three inches long and two thick, and rolled up as tightly as possible, or a round piece of wood of the above size, and covered with linen, should be placed longways in the middle of the ham. The handkerchief is then to be applied *over* this, and the rack-pin inserted under one of the turns of the handkerchief at the front part of the thigh, opposite the pad, and twisted and fastened as already described. If the wound is *above* the knee, and the patient lying on his back, with the limb straight, the pad must be placed at the middle of the thigh, about an inch and a quarter near the inner than the outer part of the limb, and the rack-pin applied either *over* it (taking care that the pad does not slip) or somewhat to its outer side. In this situation the rack-pin ought not to be placed opposite the pad, from the risk of its slipping from the patient resting his limb on it. If the bleeding is from the forearm or from the arm immediately above the elbow, and does not stop by direct pressure over the bleeding point, the pad must be applied on the inner side of the fleshy part of the arm, and secured in the same manner as on the thigh or in the ham.

SEVERANCE OF A LIMB BY A PERSON BEING RUN OVER.

In accidents of this kind the bleeding is not so great as at first would be imagined by a non-professional person. It, however, does occur, and the loss of a comparatively small quantity of blood may prove fatal during the continuance of the severe state of shock under which the patient is certain to be labouring. The same means are to be used for arresting the bleeding as given under the preceding head. The end of the stump is to be covered with linen soaked in cold water, and a teaspoonful of wine or spirits, mixed with water, given every ten or fifteen minutes, until the patient somewhat revives.

SIMPLE FRACTURE.

The fractured limb is to be put into as natural and easy position as possible, and the broken ends of the bone kept in their place, by putting a splint padded with cotton wadding, linen, or any soft substance, on each side of the limb, and secured by means of a bandage or handkerchief. The splints should be made of thin wood or pasteboard, each one two-thirds the breadth of the limb, and long enough to extend from the joint above to an inch beyond the joint below the fracture. For example, in a fracture of the leg, the splints must extend from the knee to an inch below the ankle. If wood or pasteboard is not at hand, wheat straw cut to the proper length, and half an inch in thickness, answers very well. Very great care must be taken in removing the patient, as, if the limb is handled roughly, the broken bone may be pushed through the skin, and the injury in consequence rendered very serious.

COMPOUND FRACTURE.

This differs from simple fracture in there being a wound leading to the broken surfaces of the bone. The limb is to be put up in the same

manner as in simple fracture. If the bones project through the skin, an attempt is to be made to reduce them by gently pulling the lower part of the limb. If this be unsuccessful, the limb should be placed in as comfortable a position as possible, and all haste made to procure a surgeon. If there is much bleeding, the means for arresting it recommended under the fifth head must be had recourse to.

SCALDS AND BURNS.

Scalds are produced by hot liquids, and burns by solid bodies in a state of heat, or by fire. The effects are threefold, viz., redness with pain, blisters, and destruction of the part. For redness—the part should be protected from the air by cotton wadding. If this is not at hand, several folds of linen, wet with cold water, must be applied, and kept wet by pouring water on them from time to time, without removing them from the limb. If blisters have risen, leave them alone, unless they are very tense, when they are to be pricked with a needle or pin. The wet linen is then to be applied. If the part burnt is brown or black, and is not painful to the touch, it is a sign that its vitality is gone. The wet linen is still to be used. If the burn is extensive, and much of the integument is destroyed, the patient, more especially a child, will be in great danger of sinking from the shock of the injury. For the treatment of shock see next paragraph.

SHOCK OF SYSTEM.

By this is understood the great prostration of the system which follows any severe accident. It may be produced also by any sudden emotion, or by excessive fear. It is known by the lips and face becoming pale, the body and limbs being cold, and the pulse being hardly perceptible, while the person is not insensible, unless during fainting, which may occur from fright. The patient is to be laid flat, and have everything tight removed from the neck or chest. Heat, as far as can be procured, is to be applied to the body and limbs, and a teaspoonful of wine or spirits, the latter mixed with water, given every ten or fifteen minutes. It is difficult to give any precise directions about the treatment of shock to a non-professional person, as there are some injuries with which it may be confounded, and in which it exists, as concussion of the brain, injury to an external organ, &c.: in these, stimulants, if given, would be injurious. Therefore, perhaps, as a general rule, they ought not to be administered, except in cases of severe burn or scald, injuries attended with great loss of blood, and where persons are prostrated through fear only. When the patient is removed, care must be taken to keep the body in a horizontal position.

DISLOCATIONS.

In all cases of dislocation of the large joints, surgical aid should be procured as soon as possible: no attempt at reduction should be made at the time, from the risk of mistaking the injury, and producing still further mischief.

The removal of injured persons should never be effected in carts, or other jolting conveyances.

The following are some of the "first aid" instructions given in Surgeon-Major P. Shepherd's handbook, in use by the St. John's Ambulance Association as an official text book, and quoted here by the kind permission of that association :—

EXAMINATION AND TREATMENT OF A PERSON FOUND INSENSIBLE.

1. Note the position of the body and its surroundings.
2. Obtain all information possible as to the cause.
3. Place the body on the back, with the head inclined to one side, the arms by the sides and extend the legs.
4. In examining the head pass the finger gently over the surface, and search for wounds, bruises, swellings or depressions.
5. Open the eyes and ascertain if the surface of the eye-balls is sensitive to the touch, if the pupils become small when exposed to light, and whether the pupils are large or small and of the same size.
6. Observe the state of the respiration, whether easy or difficult, the presence or absence of snoring, and the odour of the breath.
7. Notice the condition of the pulse whether strong or weak.
8. Observe the general appearance and position of the limbs and mobility, crepitus, shortening or lengthening of the bones of the limbs.
9. Note the state of the ribs and collar bones.

CHIEF CAUSES OF INSENSIBILITY.—Injuries to brain, compression from fracture—diseases of brain—apoplexy—epilepsy—poisoning by narcotics, as opium, morphia, and chloroform—blood poisoning from kidney disease.

SHOCK OR COLLAPSE.

Cause.—Injuries to nervous system by blows, operations, fright, grief, lightning. Death may be instantaneous, recovery may be slow or rapid. *Symptoms.*—Face pale and pinched, eyes dull; pulse almost imperceptible; breathing very feeble, the functions of respiration and circulation are reduced to a minimum.

HÆMORRHAGE (BLEEDING).

Hæmorrhage or bleeding is the result of the opening of a blood-vessel by a wound or otherwise. It may be external or internal. Hæmorrhage is divided into (1), arterial, where the blood flows in jets in great force, and is of a bright red colour; (2), venous, where it flows slowly, wells out, and is of a dark purple hue; (3), capillary, where there is a general oozing of red blood from the surface.

Pressure is the most powerful means of arresting external hæmorrhage, and to use it effectually it is important that the pressure should be directed against some bone as a point of resistance. In all portions of the body where special treatment is not specified, direct pressure to the wounded part will be sufficient to arrest bleeding, till further assistance can be procured.

ARTERIAL BLEEDING.

- (1), Expose and examine the wound; (2), wash with cold water; (3), elevate the bleeding part, but place the body in the lying down

position; (4), apply pressure with the fingers directly over the mouths of the bleeding vessels till you can get further help; (5), apply pressure to the main artery on the heart side with the fingers, or with a pad and bandage (tourniquet); (6), apply a pad and bandage over the wound as an additional safeguard.

VENOUS BLEEDING.

This may occur along with arterial bleeding or by itself. A superficial wound is more likely to divide veins than arteries. Dangerous venous bleeding often takes place where the patient has varicose veins and ulcers on the lower limbs (the direction of the flow of blood towards the heart, just the reverse of what obtains in the arteries, is a fact that bears on the treatment). (1), Expose and examine the wound; (2), wash well in cold water; (3), elevate the limb, keeping body in lying down position; (4), apply a pad and bandage on both sides of wound; (5), remove any pressure or restriction to the circulation on the heart side, such as tight clothing—(this cannot be done where arterial bleeding has also to be treated).

CAPILLARY BLEEDING.

(1), Direct pressure to the bleeding surface; (2), application of ice or of styptics, such as alum, steel drops, caustics, &c.

INTERNAL BLEEDING.

This kind is seldom so rapid, except in cases of bursting of an aneurism as not to give time for skilled aid. (1), Place the patient in an easy recumbent position; (2), apply ice to or as near as possible to the part affected; (3), sucking ice is useful in bleeding about mouth, throat, or air passages.

FRACTURES.

(1), Simple fracture, a simple break; (2), compound fracture, a flesh wound communicating with the broken ends of the bone; (3), complicated fracture, injuries to soft parts, blood vessels, nerves, joints, or internal organs; (4), comminuted fracture, smashing of bone into pieces. A fracture may take place transversely, obliquely, or longitudinally. The symptoms of fractures are (1), inability to use the limb; (2), alteration in shape and general appearance; (3), unusual mobility of seat of fracture; (4), crepitus or crackling on placing one hand over the broken part, and creating motion with the other; (5), shortening of the limb; (6), some inequality felt on running the fingers along the surface of the injured bone.

Fractures are distinguished from dislocations as follows:—

FRACTURES.	DISLOCATIONS.
Crepitus.	No crepitus.
Unnaturally movable.	More or less fixed.
Easily replaced.	Replaced with difficulty.
Limb often shortened.	Limb may be shortened or lengthened.
Seat of injury in the shaft or body of the bone.	Seat of injury at a joint

TREATMENT OF FRACTURES.

Reduce the fractured ends or portions to their natural position. Retain them immovably in their proper places till nature has effected a permanent cure. There is no urgency about treating a broken limb, provided no attempt is made to move the person, but if it is imperative that the patient be moved in the absence of a surgeon, it is an absolute necessity to secure the safety of the limb by putting it in splints before removal.

A stretcher is the only safe means of conveyance for cases of fracture.

Unskilful handling may cause either serious mischief or even loss of life—the dangers are, pressing the sharp ends through the skin and thus making the fracture compound, or through blood-vessels, nerves, or into some internal organ such as the lungs.

KINDS OF FRACTURE.

FRACTURE OF THE SKULL.—*Symptoms.*—External signs not always present. In fracture of the base there may be bleeding from ear, mouth or nose, red patches of blood under conjunctive of eyes, and oozing of watery fluid from the ears. Accompanying these there may be symptoms of concussion, or symptoms of compression. *Treatment.*—Place patient in a dark quiet room on his back with head slightly raised. Apply cold water to head as soon as reaction sets in and patient gets hot and feverish.

FRACTURE OF LOWER JAW.—*Symptoms.*—Irregularity in the line of the teeth and the outline of the lower margin of bone, inability to move jaw. *Treatment.*—Fix lower jaw to upper jaw by a bandage.

FRACTURE OF COLLAR BONE.—*Symptoms.*—Shoulder drops. Arm is helpless. Irregularity on drawing finger along surface of bone. Patient inclines head to the injured side and supports the elbow with the sound hand. *Treatment.*—Place a pad in armpit, bind arm to side just above elbow, and sling forearm.

FRACTURE OF RIBS.—*Symptoms.*—Catching pain and difficulty in breathing, which is jerky and shallow and crepitus when patient coughs. *Treatment.*—Apply a broad roller bandage firmly round chest so as to prevent all movement, or strap the injured side with adhesive plaster.

FRACTURE OF THE HUMERUS (one of bones in arm).—*Symptoms.*—Mobility at seat of fracture, crepitus, shortening usually present when fracture is oblique. *Treatment.*—Apply a roller bandage from hand to elbow, abduct arm and apply three or four splints from shoulder to elbow. Support arm in sling.

FRACTURE OF THE FOREARM.—*Symptoms.*—Crepitus, mobility, alteration in shape of arm. *Treatment.*—Semiflex forearm with thumb pointing upwards. Apply two splints, one inside from bend of elbow to the tips of the fingers, and one outside from elbow to wrist. The splints should be well padded. Place arm in sling.

FRACTURES ABOUT WRIST AND HAND.—*Symptoms.*—Pain, swelling, irregularity in the outline of the bones, crepitus. *Treatment.*—Bandage to a flat board or splint and support by sling.

FRACTURE OF FEMUR OR THIGH BONE.—*Symptoms.*—Pain and loss of power, crepitus, shortening, broken ends may be felt, foot turned out. *Treatment.*—Extend the limb, apply a long splint on outside along the whole side, from the armpit to the outside of the heel, and another in the inside of the thigh, from the top of the inside of the thigh to the knee.

FRACTURE OF PETELLA OR KNEE-CAP.—*Symptoms.*—Inability to stand upon leg, fragments can be felt. *Treatment.*—Raise the limb on a splint to a position oblique with the body, and apply a figure-of-eight bandage around the knee, including the fragments.

FRACTURE OF BONES OF THE LEG.—*Symptoms.*—Pain and loss of power, alteration in shape, crepitus, broken ends may be felt. *Treatment.*—Apply two splints, one inside and one outside the limb, elevate limb.

FRACTURES ABOUT FOOT AND ANKLE.—*Symptoms.*—Pain, swelling, alteration in outline of bones, crepitus. *Treatment.*—Elevate foot, apply cold water. Before applying any splint be careful to pad it well with some soft material, as tow, wadding, cotton wool, &c.

N.B.—It must be remembered that the treatment for fractures here given is only temporary, to enable the patient to be moved without further injuries which might result in the loss of the limb or even life, till a surgeon can be sent for.

STRETCHERS.—A stretcher is simply a light portable bed for carrying the sick; it is composed of a framework of poles, with a piece of canvas stretched between them as a mattress. An improved folding stretcher is now issued by the St. John's Ambulance Association. A variety of things will answer as substitutes for stretcher, such as doors, window shutters, ladders or hurdles.

To place a man on a stretcher with three bearers. Put the foot of the stretcher at the wounded man's head in a line continuous with his body. Numbers 1 and 2 men, one on either side, locking hands underneath the shoulders and hips, raise the patient, carry him forward over the stretcher and then lower him on to it. Number 3 man takes charge of the injured portion (limb or head) and steadies it with a hand on either side of the wound. Numbers 1 and 2 men then take their places at head and foot of stretcher, lift and carry off, while number 3 man walks at the side of the stretcher as a safeguard to the patient and as a relief to numbers 1 or 2 men, if necessary. Carry a stretcher in hands or suspend it by straps over the bearers' shoulders. Never allow the stretcher to be placed on the shoulders. Bearers to march in broken step and not in time. Avoid all jolting, crossing fences, ditches, &c. Pace to be about twenty inches. In ascending patient's head to be in front, and in descending behind.

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FOR THE

REGULATION OF RAILWAYS.

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GENERAL.

ARREST AND PUNISHMENT OF RAILWAY SERVANTS FOUND DRUNK ON DUTY.—That it shall be lawful for any officer or agent of any railway company, or for any special constable duly appointed, and all such persons as they may call to their assistance to seize and detain any engine driver, waggon driver, guard, porter, servant, or other person employed by the said or by any other railway company, or by any other company or person in conducting traffic upon the railway belonging to the said company, or in repairing and maintaining the works of the said railway, who shall be found drunk while so employed upon the said railway, who shall commit any offence against any of the bye-laws, rules or regulations of the said company, or who shall wilfully, maliciously or negligently do or omit to do any act, whereby the life or limb of any person passing along or being upon such railway or the works thereof respectively, shall be or might be injured or endangered, or whereby the passage of any engines, carriages or trains shall be or might be obstructed or impeded, and to convey such engine driver, guard, porter, servant, or other person so offending, or any person counselling, aiding or assisting in such offence, with all convenient despatch before some Justice of the Peace for the place within which such offence shall be committed, without any other warrant or authority than this act; and every such person so offending, and every person counselling, aiding or assisting therein as aforesaid, shall, when convicted upon the oath of one or more credible witness or witnesses before such Justice as aforesaid (who is hereby authorised and required upon complaint to him made upon oath without information in writing, to take cognizance thereof and to act summarily in the premises), in the discretion of such Justice, be imprisoned with or without hard labour for any term not exceeding two calendar months; or in the like discretion of such Justice, shall for every such offence forfeit to Her Majesty any sum not exceeding ten pounds, and in default of payment thereof shall be imprisoned with or without hard labour as aforesaid for such period not exceeding two calendar months, as such Justice shall appoint such commitment to be determined on payment of the amount of the penalty; and every such penalty shall be returned to the next ensuing court of quarter sessions in the usual manner.—5 and 6 Vic., cap. 55, section 17.

OBSTRUCTING RAILWAY SERVANTS IN THEIR DUTY AND TRESPASSING ON STATIONS.—Section 16.—If any person shall wilfully obstruct or impede any officer or agent of any railway company in the execution of his duty upon any railway or upon or in any of the stations or other works or premises connected therewith, or if any person shall wilfully trespass upon any railway or any of the stations or other works or premises connected therewith, and shall refuse to quit the same upon request to him made by any officer or agent of the said company, every such person so offending and all others aiding or assisting therein shall, and may be seized and detained by any such officer or agent or any

person to whom he may call to his assistance, until such offender or offenders can be conveniently taken before some Justice of the Peace for the county or place wherein such offence shall be committed, and when convicted before such Justice as aforesaid (who is hereby authorised and required, upon complaint to him upon oath to take cognisance thereof, and to act summarily in the premises) shall, in the discretion of such Justice, forfeit to Her Majesty any sum not exceeding five pounds, and in default of payment thereof, shall or may be imprisoned for any term not exceeding two calendar months, such imprisonment to be determined on payment of the amount of the penalty.—3 and 4 Vic., *cap.* 97, *section* 16. (The arrest of a person is always to be avoided, because, if from some technicality of the law the case is not proved before the Justice, the company or the company's servant will be liable for heavy damages for false arrest.)

PENALTY FOR TRESPASS ON RAILWAYS.—Section 23.—If any person shall be or pass upon any railway, except for the purpose of crossing the same at any authorised crossing, after having once (34 and 35 Vic., *cap.* 78, *section* 14) received warning by the company which works such railway, or by any of their agents or servants, not to go or pass thereon, every person so offending shall forfeit and pay any sum not exceeding forty shillings for every such offence.—31 and 32 Vic., *cap.* 119, *section* 23.

PUNISHMENT OF JUVENILE OFFENDERS FOR CASTING STONES, &c., ON RAILWAY CARRIAGES, &c.—Section 13.—The following acts—

The act of the session of the tenth and eleventh years of Her Majesty's reign (chapter eighty-two) "for the more speedy trial and punishment of juvenile offenders," and

The act of the session of the thirteenth and fourteenth years of Her Majesty's reign (chapter thirty-seven) "for the further extension of summary jurisdiction in cases of larceny," shall have effect as if they had been mentioned therein in addition to the offence of larceny the several offences following:—

The offences mentioned in sections thirty-two and thirty-three of the act of the session of the twenty-fourth and twenty-fifth years of Her Majesty's reign (chapter one hundred) "to consolidate and amend the statute law of England and Ireland relating to offences against the person," and

The offences mentioned in section thirty-five of the act of the same session (chapter ninety-seven) "to consolidate and amend the statute law of England and Ireland relating to malicious injuries to property."

Nothing in this section shall affect any offence committed before the passing of this act.—34 and 35 Vic., *cap.* 78, *section* 13.

MALICIOUS INJURIES TO RAILWAY PROPERTY.—24 and 25 Vic., *cap.* 97.—An act to consolidate and amend the Statute Law of England and Ireland relating to malicious injuries to property (as far as relates to railways), August 6, 1861.

SETTING FIRE TO RAILWAY STATIONS OR BUILDINGS.—Section 4.—Whoever shall unlawfully and maliciously set fire to any station, engine house, warehouse or other building belonging or appertaining to any railway, port, dock or harbour, or to any canal or other navigation shall be guilty of felony, and being convicted thereof shall be liable at the discretion of the court to be kept in penal servitude for life or for any term not less than three years (amended to five by 27 and 28 Vic., cap. 47, section 2), or to be imprisoned for any term not exceeding two years with or without hard labour, and if a male under the age of sixteen years with or without whipping.

INJURING AND THROWING DOWN RAILWAY BRIDGES.—Section 39.—Whoever shall unlawfully and maliciously pull or throw down or in anywise destroy any bridge (whether over any stream of water or not) or any viaduct or aqueduct over or under which bridge, viaduct or aqueduct any highway, railway or canal shall pass, or do any injury with intent and so as thereby to render such bridge, viaduct or aqueduct or the highway, railway or canal passing over or under the same or any part thereof dangerous or impassable shall be guilty of felony, and being convicted thereof shall be liable at the discretion of the court to be kept in penal servitude for life or for any term not less than three years (amended to five by 27 and 28 Vic., cap. 47, section 2), or to be imprisoned for any term not exceeding two years with or without hard labour, and with or without solitary confinement, and if a male under the age of sixteen years of age with or without whipping.

PLACING OBSTRUCTIONS ON RAILWAY, REMOVING RAILS, ALTERING POINTS, OBSTRUCTING SIGNAL LIGHTS, &c.—Whosoever shall unlawfully and maliciously put, place, cast, or throw upon or across any railway any wood, stone, or other matter or thing, or shall unlawfully and maliciously take up, remove or displace any rail, sleeper or other matter or thing belonging to any railway, or shall unlawfully and maliciously turn, move, or divert any points or other machinery belonging to any railway, or shall unlawfully and maliciously make or show, hide or remove any signal or light upon or near to any railway, or shall unlawfully and maliciously do, or cause to be done any other matter or thing with intent, in any of the cases aforesaid, to obstruct, upset, overthrow, injure, or destroy any engine, tender, carriage or truck using such railway, shall be guilty of felony, and being convicted thereof shall be liable at the discretion of the court to be kept in penal servitude for life or for any term not less than five years, or to be imprisoned for any term not exceeding two years with or without hard labour, and if a male under the age of sixteen with or without whipping.

OBSTRUCTING ENGINES AND CARRIAGES, AND ENDANGERING THE SAFETY OF PERSONS.—Section 36.—Whosoever by any unlawful act or by any wilful omission or neglect shall obstruct or cause to be obstructed any engine or carriage using any railway, or shall aid or assist therein, shall be guilty of a misdemeanour, and being

convicted thereof shall be liable at the discretion of the court to be imprisoned for any term not exceeding two years, with or without hard labour:—

“A person who alters the signals, or makes signals with his arms, and thereby causes a train to slacken speed is guilty of obstructing the train within the meaning of this section,”
—(*R. v. Hatfield* 39, “*Law Journal*” *Magistrates Cases* 131, and *R. v. Hardy* 40, “*Law Journal*” *Magistrates Cases* 62).

DEFACING OR REMOVING TOLL BOARDS, MILESTONES OR MILEPOSTS.—Section 95.—No tolls shall be demanded or taken by the company for the use of the railway during any time at which the boards hereinbefore directed to be exhibited shall not be so exhibited, or at which the milestones hereinbefore directed to be set up and maintained shall not be so set up and maintained; and if any person wilfully pull down, deface, or destroy any such board or milestone he shall forfeit a sum not exceeding five pounds for every such offence.—8 *Vic.*, cap. 20, section 95.

SHUTTING RAILWAY GATES AT LEVEL CROSSINGS.—Section 75.—If any person omit to shut and fasten any gate set up at either side of the railway for the accommodation of the owners or occupiers of the adjoining lands as soon as he and the carriage, cattle, or other animals under his care have passed through the same, he shall forfeit for every such offence any sum not exceeding forty shillings.—8 *Vic.*, cap. 20, section 75.

COMPULSORY EXAMINATION OF MINES BENEATH, ADJACENT, OR DANGEROUS TO RAILWAY LINE.—Section 83.—For better ascertaining whether any such mines are being worked, or have been worked so as to damage the railway or works, it shall be lawful for the company, after giving twenty-four hours’ notice in writing, to enter upon any lands through or near which the railway passes wherein any such mines are being worked, or are supposed so to be, and to enter into and return from any such mines or the works connected therewith; and for that purpose it shall be lawful for them to make use of any apparatus or machinery belonging to the owner, lessee, or occupier of such mines, and to use all necessary means for discovering the distance from the railway to the parts of such mines which are being worked or about so to be.—8 *Vic.*, cap. 20, section 83.

PENALTY OF TWENTY POUNDS AGAINST MINE OWNER OR OCCUPIER FOR REFUSING TO ALLOW COMPANY’S OFFICER TO INSPECT MINE.—Section 84.—If any such owner, lessee, or occupier of any such mine shall refuse to allow any person appointed by the company for that purpose to enter into and inspect any such mines or works in manner aforesaid (section 83), every person so offending shall, for every such refusal, forfeit to the company a sum not exceeding twenty pounds.—8 *Vic.*, cap. 20, section 84.

LOCOMOTIVE ENGINES TO BE CONSTRUCTED ON THE PRINCIPLE OF CONSUMING THEIR OWN SMOKE.—Section 114.—Every locomotive steam engine to be used on the railway shall, if it use coal or other similar fuel emitting smoke, be constructed on the principle of consuming and so as to consume its own smoke; and if any engine be not so constructed, the company or party using such engine shall forfeit five pounds for every day during which such engine shall be used on the railway.—8 *Vic.*, cap. 20, section 114.

Section 19.—Where proceedings are taken against a company using a locomotive steam engine on a railway on account of the same not consuming its own smoke, then, if it appears to the justices before whom the complaint is made, that the engine is constructed on the principle of consuming its own smoke, but that it failed to consume its own smoke, as far as practicable, at the time charged in the complaint, through the default of the company or of any servant in the employment of the company, such company shall be deemed guilty of an offence under the Railways Clauses Consolidation Act, 1845, section 114.—31 and 32 *Vic.*, cap. 119, section 19.

NO LOCOMOTIVE ENGINE OTHER THAN THE COMPANY'S TO BE BROUGHT UPON THE LINE WITHOUT THE COMPANY'S CERTIFICATE—COMPANY HAVE POWER TO STOP LOCOMOTIVES WORKING THAT ARE OUT OF REPAIR.—No locomotive or other engine, or other description of moving power, shall at any time be brought upon or used on the railway unless the same have first been approved of by the company; and within fourteen days after notice given to the company by any party desirous of bringing any such engine on the railway the company shall cause their engineer or other agent to examine such engine at any place within three miles distance from the railway to be appointed by the owner thereof and to report thereon to the company; and within seven days after such report, if such engine be proper to be used on the railway the company shall give a certificate to the party requiring the same of their approval of such engine; and if at any time the engineer or other agent of the company report that any engine used upon the railway is out of repair, or unfit to be used upon the railway, the company may require the same to be taken off or may forbid its use upon the railway until the same shall have been repaired to the satisfaction of the company, and upon the engine being so repaired the company shall give a certificate to the party requiring the same of their approval of such engine; and if any difference of opinion arise between the company and the owner of any such engine as to the fitness or unfitness thereof for the purpose of being used on the railway, such difference shall be settled by arbitration.—8 *Vic.*, cap. 20, section 115. (Section 116 provides a penalty of twenty pounds for breach of section 115.)

POWER OF RAILWAY COMPANIES TO MAKE BYE-LAWS.—It shall be lawful for the company, from time to time, subject to the provisions and restrictions in this and the special act contained, to make regulations for the following purposes (that is to say):—

1. For regulating the mode by which and the speed at which carriages using the railway are to be moved or propelled.
2. For regulating the times of the arrival and departure of any such carriages.
3. For regulating the loading or unloading of such carriages and the weights which they are respectively to carry.
4. For regulating the receipt and delivery of goods and other things which are to be conveyed upon such carriages.
5. For preventing the smoking of tobacco and the commission of any other nuisance, in or upon such carriages, or in any of the stations or premises occupied by the company. (The portion relating to tobacco smoking is modified by 31 and 32 Vic., cap. 119, section 20, ordering smoking carriages on trains.)
6. And generally for regulating the travelling upon or using and working of the railway.

But no such regulation shall authorise the closing of the railway, or prevent the passage of engines or carriages on the railway at reasonable times, except at any time when in consequence of any of the works being out of repair, or from any other sufficient cause, it shall be necessary to close the railway or any part thereof.—8 Vic., cap. 20, section 108.

Bye-laws are to be approved by the Board of Trade.	} 8 and 4 Vic., cap. 97, section 8.
Board of Trade may disallow bye-laws.	" 8 Vic." 9.
Company may make and alter bye-laws.	} 8 Vic., cap. 20, section 109.
Persons offending against bye-laws liable to forfeit five pounds.	} " " 109.
Substance of bye-laws to be exhibited on a board.	} " " 110.
Bye-laws to be binding on all parties.	" " 111.

DEFACING BOARDS USED FOR PUBLISHING BYE-LAWS.—Section 146.—If any person pull down or injure any board put up or affixed as required by this or the special act or any act incorporated therewith, for the purpose of publishing any bye-law or penalty, or shall obliterate any of the letters or figures thereon, he shall forfeit for every such offence a sum not exceeding five pounds, and shall defray the expenses attending the restoration of such board.—8 Vic., cap. 16, section 146.

RAILWAY OFFICERS REQUIRED TO KEEP ACCOUNTS AND DELIVER UP SAME AND CASH BALANCES.—Section 110.—Every officer employed by the company shall from time to time when required by the directors make out and deliver to them or to any person appointed by them for that purpose a true and perfect account in writing under his hand of all moneys received by him on behalf of the company, and such account shall state how and to whom and for what purpose such moneys shall have been disposed of; and together with such accounts, such officer shall deliver the vouchers and receipts for such payments, and every such officer shall pay to the directors or to any person

appointed by them to receive the same, all moneys which shall appear to be owing from him upon the balance of such accounts.—8 *Vic.*, *cap.* 16, *section* 110.

Summary remedy against officers failing to account to the company.	8 <i>Vic.</i> , <i>cap.</i> 16, <i>section</i> 111.
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Provision for officer being summoned before two justices who may order payment.	" " 111.
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Officers refusing to deliver up documents to be imprisoned.	" " 112.
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If an officer is about to abscond a warrant may be issued in the first instance.	" " 113.
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Each railway company required to keep the half-yearly accounts in one particular form, that all railway accounts may be uniform for comparison.	81 and 82 <i>Vic.</i> , <i>cap.</i> 119, <i>section</i> 3.
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Accounts to be signed and printed and copies distributed.	" " 4.
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Penalty for falsifying half-yearly accounts, fifty pounds for summary conviction or to fine and imprisonment.	" " 5.
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Board of Trade may appoint inspectors to examine accounts.	" " 6.
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Trees growing at side of railway and dangerous to railway may be cut down or removed.	" " 24.
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Appointment of railway commission.	86 and 87 <i>Vic.</i> , <i>cap.</i> 48, <i>section</i> 4.
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GOODS TRAFFIC.

POWER OF COMPANY TO CHARGE EXTRA WHEN VALUE IS DECLARED.—In which case it shall be lawful for such company to demand and receive, by way of compensation for the increased risk and care thereby occasioned, a reasonable percentage upon the excess of the value so declared above the respective sums so limited as aforesaid, and which shall be paid in addition to the ordinary rate of charge; and such percentage or increased rate of charge shall be notified in the manner prescribed in the statute 11 George IV. and 1 William IV., *cap.* 68, and shall be binding upon such company in the manner therein mentioned.—17 and 18 *Vic.*, *cap.* 81, *section* 7.

LIMIT OF MONEY DAMAGES FOR CATTLE WHEN VALUE IS UNDECLARED.—Provided always that no greater damages shall be recovered for the loss of, or for any injury done to any of such animals, beyond the sums hereinafter mentioned (that is to say), for any horse fifty pounds, for any neat cattle per head fifteen pounds, for any sheep or pigs per head two pounds, unless the person sending or delivering the same to such company shall, at the time of such delivering, have declared them to be respectively of higher value than as above-mentioned.—17 and 18 *Vic.*, *cap.* 81, *section* 7.

THIS ACT DOES NOT AFFECT THE CARRIERS ACT, WHERE IF GOODS ARE IN VALUE OVER TEN POUNDS A DECLARATION OF SAME IS COMPULSORY TO ENABLE OWNER TO RECOVER ANYTHING FOR THEIR LOSS.—Provided also that nothing herein contained shall alter or affect the rights, privileges, or liabilities of any such company under the said act of the 11 George IV., and 1 William IV., cap. 68, with respect to articles of the descriptions mentioned in the said act.—17 and 18 Vic., cap. 31, section 7.

PROOF OF THE VALUE OF CATTLE, ARTICLES AND GOODS RESTS WITH THE OWNER.—Provided also that the proof of the value of such animals, articles, goods and things, and the amount of the injury done thereto shall in all cases lie upon the person claiming compensation for such loss or injury.—17 and 18 Vic., cap. 31, section 7.

Public notices limiting company's liability } illegal.	17 and 18 Vic., cap. 31, section 7.
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Carrier empowered to make such a special contract with his customer as a judge sub- sequently may hold to have been "just and reasonable."	} " "
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The special contract note for carriage at "owner's risk" must be signed by owner or his servant who delivers the traffic.	} " "
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(See under Acceptance of Goods Outwards, page 72.)

FACILITIES FOR THROUGH BOOKING AND RESTRICTIONS TO PREVENT UNDUE PREFERENCE TO ONE TRADER OVER ANOTHER.—Every railway company, canal company, and railway and canal company shall, according to their respective powers, afford all reasonable facilities for the receiving and forwarding and delivering of traffic upon and from the several railways and canals belonging to or worked by such companies respectively, and for the return of carriages, trucks, boats, and other vehicles; and no such company shall make or give any undue or unreasonable preference or advantage to or in favour of any particular person or company, or any particular description of traffic in any respect whatsoever, nor shall any such company subject any particular person or company or any particular description of traffic to any undue or unreasonable prejudice or disadvantage in any respect whatsoever; and every railway company and canal company and railway and canal company having or working railways or canals which form part of a continuous line of railway or canal, or railway and canal communication, or which have the terminus station or wharf of the one near the terminus station or wharf of the other, shall afford all due and reasonable facilities for receiving and forwarding all the traffic arriving by one of such railways or canals by the other, without any unreasonable delay, and without any such preference or advantage or prejudice or disadvantage as aforesaid, and so that no obstruction may be offered to the public desirous of using such railways or canals, or railways and canals as a continuous line of communication, and so that all reasonable accommodation may, by means of the railways and

canals of the several companies, be at all times afforded to the public in that behalf.—17 and 18 Vic., cap. 31, section 2, the "*Railway and Canal Traffic Act.*"

Parties complaining that reasonable facilities for forwarding traffic, &c., are withheld may apply by motion or summons to the superior courts. (Jurisdiction transferred to Railway Commissioners by 36 and 37 Vic., cap. 48, section 6.)

17 and 18 Vic.,
cap. 31, section 8.

SEPARATION OF CHARGE TO DISTINGUISH THE TOLLS FROM THE TERMINALS.—Section 17.—Where any charge shall have been made by a company in respect of the conveyance of goods over their railway on application in writing within one week after payment of the said charge made to the secretary of the company by the person by whom or in whose account the same has been paid, the company shall, within fourteen days render an account to the person so applying for the same, distinguishing how much of the said charge is for the conveyance of the said goods on the railway, including therein tolls for the use of the railway for the use of carriages and for locomotive power, and how much of such charge is for loading and unloading, covering, collection, delivery, and for other expenses, but without particularising the several items of which the last mentioned portion of the charge may consist.—31 and 32 Vic., cap. 119, section 17.

DANGEROUS GOODS THE COMPANIES MAY REFUSE TO CARRY.—No person shall be entitled to carry, or to require the company to carry, upon the railway any AQUAFORTIS, OIL OF VITRIOL, GUN-POWDER, LUCIFER MATCHES, or any other goods which in the *judgment of the company* may be of a dangerous nature; and if any person send by the railway any such goods without distinctly marking their nature on the outside of the package containing the same, or otherwise giving notice in writing to the bookkeeper or other servant of the company with whom the same are left at the time of so sending, he shall forfeit to the company twenty pounds for every such offence; and it shall be lawful for the company to refuse to take any *parcel that they may suspect* to contain goods of a dangerous nature, or require the same to be opened to ascertain the fact.—8 Vic., cap. 20, section 105.

Carriage and deposit of dangerous goods, } 29 and 30 Vic., cap.
Act of 1866. } 69, with 10 sections.

The Explosives Act of 1875 to amend the }
law with respect to manufacturing, keeping, }
selling, *carrying*, and importing gunpowder, } 38 Vic., cap. 17.
nitro-glycerine and other explosive substances. }

DETENTION OF GOODS AND SALE OF SAME FOR CARRIAGE.—Section 100.—If any dispute arise concerning the amount of the tolls (carriage) due to the company, or concerning the charges occasioned by any detention or sale thereof, under the provisions herein or in the special act contained, the same shall be settled by a justice; and it

shall be lawful for the company in the meanwhile to detain the goods, or (if the case so require) the proceeds of the sale thereof. (Act contemplates the company selling the goods for the carriage—perishables and the like.)—8 Vic., cap. 20, section 100.

EXHIBITION OF TOLLS UPON NOTICE BOARDS COMPULSORY.—Section 93.—A list of all the tolls authorised by the special act (company's act) to be taken, and which shall be exacted by the company, shall be published by the same being painted upon one toll board or more in distinct black letters on a white ground or white letters on a black ground, or by the same being printed in legible characters on paper affixed to such board, and by such board being exhibited in some conspicuous place on the stations or places where such tolls shall be made payable.—8 Vic., cap. 20, section 93.

False declaration of goods. (See under Correspondence, page 311.) } 8 and 9 Vic., cap. 20, sections 98 and 99.

Exhibition of notice required under Carriers Act respecting certain goods over ten pounds value. } 1 William IV., cap. 68, section 2.

Public rate book at each station. (See under Acceptance of Goods Outwards, page 134.) } 36 and 37 Vic., cap. 48, section 14.

Equality clause—company may alter or vary tolls, but not unfairly favour one trader over another trader. (See under Acceptance of Goods Outwards, page 136.) } 8 and 9 Vic., cap. 20, section 90.

SECTIONS RELATING TO OWNERS' WAGGONS.

Carriages (i.e., waggons) to be constructed according to company's regulations. } 8 Vic., cap. 20, section 117.

Such regulations to apply also to the company's carriages. } " " 118.

If carriages used are contrary to such regulations owner liable to forfeit ten pounds. } " " 119.

Owner's name to be registered and painted on carriages. } " " 120.

If owner fail to register carriages they may be removed. } " " 121.

Carriages improperly loaded or suffered to obstruct the road may be unloaded or removed. } " " 122.

Company not to be liable for damage by such unloading. } " " 123.

Owners of engines and carriages liable for damage done by their servants. } " " 124.

Owners may recover the amount of such damage from their servants. } " " 125.

GOODS AND PASSENGER TRAFFIC.

LIABILITY OF RAILWAY COMPANIES DURING SEA TRANSIT.—Section 14.—Where a company by through booking contracts to carry any animals, luggage, or goods from place to place, partly by railway

and partly by sea or partly by canal and partly by sea, a condition exempting the company from liability for any loss or damage which may arise during the carriage of such animals, luggage or goods by sea, from the act of God, the king's enemies, fire, accidents from machinery, boilers and steam, and all and every other dangers and accidents of the seas, rivers, and navigation of whatever nature and kind soever, shall, if *published in a conspicuous manner in the office* where such through booking is effected, and if printed in a legible manner on the receipt or freight note which the company gives for such animals, luggage, or goods, be valid as part of the contract between the consignor of such animals, luggage or goods and the company, in the same manner as if the company had signed and delivered to the consignor a bill of lading containing such condition. For purposes of this section the word "company" includes the owners, lessees or managers of any canal or other inland navigation.—31 and 32 Vic., cap. 119, section 14.

SEA LOSS TO BE EQUAL UPON A RAILWAY COMPANY WHETHER THE STEAMERS ARE OWNED OR HIRED BY COMPANY.—Section 12.—Where a railway company, under a contract for carrying persons, animals, or goods by sea, procure the same to be carried in a vessel not belonging to the railway company, the railway company shall be answerable in damages in respect of loss of life or personal injury, or in respect of loss of or damage to animals or goods in like manner, and to the same amount as the railway company would be answerable if the vessel had belonged to the railway company, provided that such loss of life or personal injury, or loss or damage to animals or goods happens to the person, animals or goods (as the case may be) during the carriage of the same in such vessel, the proof to the contrary to be upon the railway company.—34 and 35 Vic., cap. 78, section 12.

PASSENGER TRAFFIC.

COMMUNICATION ON TRAINS BETWEEN PASSENGERS AND GUARDS.—Section 22.—After the first day of April, one thousand eight hundred and sixty-nine, every company shall provide and maintain in good working order, in every train worked by it, which carries passengers and travels *more than twenty miles without stopping*, such efficient means of communication between the passengers and the servants of the company in charge of the train as the Board of Trade may approve. If any company makes default in complying with this section, it shall be liable to a penalty not exceeding ten pounds for each case of default. Any passenger who makes use of the said means of communication without reasonable and sufficient cause shall be liable for each offence to a penalty not exceeding five pounds.—31 and 32 Vic., cap. 119, section 22.

PROVIDING SMOKING COMPARTMENTS COMPULSORY FOR EACH CLASS OF PASSENGERS.—All railway companies, except the Metropolitan Railway Company shall, from and after the first day of

October next, one thousand eight hundred and sixty-eight, in every passenger train where there are more carriages than one of each class, provide smoking compartments for each class of passengers, unless exempted by the Board of Trade.—31 and 32 Vic., cap. 119, section 20.

EXHIBITION OF PASSENGER FARES AT EACH STATION COMPULSORY.—Section 15.—On and after the first of January, one thousand eight hundred and sixty-nine, every (railway) company shall cause to be exhibited in a conspicuous place in the booking office of each station on their line a list or lists painted, printed, or written in legible characters containing the fares of passengers by the trains included in the time tables of the company from that station to every place for which passenger tickets are there issued.—31 and 32 Vic., cap. 119, section 15.

PASSENGER OMITTING PAYMENT OF THE PROPER FARE "WITH INTENT" TO DEFRAUD THE COMPANY.—Section 103.—If any person travel or attempt to travel in any carriage of the company or of any other company or party using the railway (running their own rolling stock) without having previously paid his (or her) fare, and *with intent to avoid* payment thereof, or if any person having paid his fare for a certain distance *knowingly and wilfully* proceed in any such carriage beyond such distance, without previously paying the additional fare for the additional distance, and *with intent to avoid* payment thereof, or if any person *knowingly and wilfully* refuse or neglect on arriving at the point to which he has paid his fare to quit such carriage, every such person shall for every such offence forfeit to the company a sum not exceeding forty shillings.—8 Vic., cap. 20, section 103.

POWER TO ARREST PASSENGERS OMITTING TO PAY THE PROPER FARE WITH "INTENT" TO DEFRAUD THE COMPANY.—Section 104.—If any person be discovered either in or after committing or attempting to commit any such offence as in the preceding enactment mentioned (section 103), all officers and servants and other persons on behalf of the company, or such other company or party as aforesaid, and all constables, gaolers and peace officers may lawfully apprehend and detain such person until he can conveniently be taken before some Justice, or until he be otherwise discharged by due course of law.—8 Vic., cap. 20, section 104. (The arrest of persons is discountenanced, because it is so difficult in law to prove the *intent*.)

TELEGRAPH.

DAMAGING OR INTERFERING WITH TELEGRAPH WIRES OR APPARATUS SUCH AS WILL DEFEAT THEIR USE.—Section 37.—Whosoever shall unlawfully and maliciously cut, break, throw down, destroy, injure, or remove any battery, machinery, wire, cable, post, or other matter, or thing whatsoever, being part of, or being used or employed in or about any electric or magnetic telegraph or in the working thereof,

or shall unlawfully and maliciously prevent or obstruct in any manner whatsoever the sending, conveyance, or delivery of any communication by any such telegraph, shall be guilty of a misdemeanour, and being convicted thereof, shall be liable at the discretion of the court to be imprisoned for any term not exceeding two years, with or without hard labour: provided that if it shall appear to any Justice on the examination of any person charged with any offence against this section, that it is not expedient to the ends of justice that the same shall be prosecuted by indictment, the Justice may proceed summarily to hear and determine the same, and the offender shall, on conviction thereof, at the discretion of the Justice, either be committed to the common gaol or house of correction, there to be imprisoned only, or to be imprisoned and kept to hard labour for any term not exceeding three months, or else shall forfeit and pay such sum of money not exceeding ten pounds as to the Justice shall seem meet.—24 and 25 Vic., cap. 97, section 37.

ATTEMPT TO DAMAGE OR INTERFERE WITH TELEGRAPH WIRES OR APPARATUS SUCH AS WILL DEFEAT THEIR USE.—Section 38.—Whosoever shall unlawfully and maliciously by any overt act attempt to commit any of the offences in the last preceding section (37) mentioned shall, on conviction thereof before a Justice of the Peace, at the discretion of the Justice, either be committed to the common goal or house of correction there to be imprisoned only, or to be imprisoned and kept to hard labour for any term not exceeding three months, or else shall forfeit and pay such sum of money not exceeding ten pounds as to the Justice shall seem meet. (Persistent stone throwing with intent to damage the wires would come under this section.)—24 and 25 Vic., cap. 97, section 38.

MISCELLANEOUS.

Continuous Brakes Act of 1878 to provide for returns respecting continuous brakes in use on passenger trains on railways. } 41 Vic., cap. 20.

Employers Liability Act of 1880 to extend and regulate the liability of employers to make compensation for personal injuries suffered by workmen in their service. } 43 and 44 Vic., cap. 42.

The Labouring Classes Dwelling Houses Act of 1866 to enable the Public Works Loan Commissioners to make advances (of money) towards the erection of dwellings for the labouring classes—railway and other companies have power to borrow. } 29 Vic., cap. 28.

The Contagious Diseases (Animals) Act of 1869. } 32 and 33 Vic., cap. 70.

An act passed by the Legislature of Canada, for the punishment of the Officers and Servants of Railway Companies in Canada. (Assented to 6th May, 1856.)

Whereas it is necessary to adopt means for preventing as far as possible, the great risk and damage to life and property which frequently arise from the non-observance by the officers and servants of railway companies of the bye-laws and regulations made for their guidance. Therefore, Her Majesty, by and with the advice and consent of the legislative council and assembly of Canada, enacts as follows:—

I. If any officer or servant of, or person employed by any railway company, shall wilfully or negligently contravene any bye-law or regulation of such company lawfully made and in force, and of which a copy shall have been delivered to him, or shall have been posted up or open to his inspection in some place where his work or his duties, or any of them are to be performed, then if such contravention shall cause injury to any property or to any person, or shall expose any property or any person to the risk of injury, or render such risk greater than it would have been without such contravention; although no actual injury shall occur, such contravention shall be a misdemeanour, and the person convicted thereof shall be liable in the discretion of the court before whom the conviction shall be laid, and according as such court shall consider the offence proved to be more or less grave, or the injury or risk of injury to person or property to be more or less great, to be punished by fine or imprisonment, or both, so as no such fine shall exceed four hundred dollars, nor any such imprisonment the term of five years: and such imprisonment, if for two years or upwards, shall be in the provincial penitentiary.

And if such contravention shall not cause injury to any property or person, nor expose any person or property to the risk of injury, nor make such risk greater than it would have been without such contravention, then the officer, servant, or other person guilty thereof shall thereby incur a penalty not exceeding the amount of thirty days' pay, nor less than fifteen days' pay of the offender from the company, in the discretion of the Justice of the Peace before whom the conviction shall be had; and such penalty shall be recoverable with costs before any one Justice of the Peace having jurisdiction where the offence shall have been committed or where the offender shall be found, on the oath of one credible witness other than the informer; and one moiety of such penalty shall belong to Her Majesty, for the public uses of the province, and the other moiety to the informer, unless he be an officer or servant of or person in the employ of the company, in which case he shall be a competent witness and the whole penalty shall belong to Her Majesty for the uses aforesaid; and the company may, in all cases under this Act, pay the amount of the penalty and costs, and recover the same from the offender or deduct it from his salary or pay.

II. It shall be lawful for any railway company by any bye-law to be hereafter made, to impose upon any officer or servant or person employed by the company, a forfeiture to the company of not less than thirty days' pay of such officer or servant for any contravention of such bye-law, and to retain any such forfeiture out of the salary or wages of the offender; provided he shall, before such contravention, have had cognizance of such bye-law, which may be proved by proving the

delivery of a copy thereof to him, or that he signed a copy thereof, or that a copy thereof was posted in same place where his work or his duties, or some of them, were to be performed; and such proof, with proof of the contravention, shall be a full answer and defence for the company in any suit for the recovery from it of the amount so retained, and such forfeiture shall be over and above any penalty under the preceding section.

Extract from an act further to amend the general acts respecting railways.—38 *Vic.*, *cap.* 24. (Assented to 8th April, 1875.)

Clause 2, sub-section 3.—Any of the conductors, engine drivers, and other officers and servants of the company, or other railway companies, using any railway, offending against any such bye-law, shall forfeit for every such offence a sum not exceeding forty dollars, to be imposed by the company in such bye-law as a penalty for every such offence.

Clause 2, sub-section 4.—If the infraction or non-observance of any such bye-law, by any of the classes in the preceding sub-section mentioned as aforesaid, be attended with danger or annoyance to the public, or hindrance to the company in the lawful use of the railway, it shall be lawful for the company summarily to interfere, using no violence or unnecessary force, to obviate or remove such danger, annoyance, or hindrance, and that without prejudice to any penalty incurred by the infraction of any such bye-law.

GLOSSARY OF RAILWAY TERMS.

N.B.—The author will be glad to receive additions for this glossary that could be used in the event of a subsequent edition being printed.

ABSTRACT BOOKS.—Books used for aggregating the totals of forwarded and received invoices to arrive at the grand totals of the principal debits and credits incidental to the account keeping between the station agent and his employers. *Abstracting—Abstract Sheet.*

ACCOMMODATION CROSSING.—See Level Crossing.

ACCOUNT CURRENT.—See Balance Sheet.

ADVICE NOTE.—A form, partly printed and partly written, used to advise consignees of the arrival of their goods, and requesting removal of same from the station.

AUDIT OFFICE.—A central office connected with each railway, to which station accounts and abstracts are periodically sent. In this office the accounts between one station and all other stations are checked and audited, and the grand totals of the traffic earnings for the line are prepared for the chief accountant, the officer who compiles the half-yearly accounts of a railway. *Chief Audit Clerk or Audit Accountant.*—One in charge of an audit office.

AUXILIARY SIGNAL.—See Distant Signal.

AXLE BOX.—An iron chamber fitted on the journals of the axles of each railway vehicle for holding grease or oil to lubricate the journal. The springs carrying the vehicle usually rest on top of the axle boxes.

BALANCE SHEET OR ACCOUNT CURRENT.—The monthly station cash debit and credit account sheet between a station agent and his employers.

BALLAST.—Fine gravel used to form a bed in which the rails and sleepers rest. The refuse of blast furnaces broken up is said to make the best ballast and the best drained permanent way. This refuse is largely used on the Caledonian Railway about Glasgow, and towards Carlisle.

BANK.—A term for an incline.

BANK ENGINE.—An engine used to assist trains up a steep incline.

BLOCK SIGNALS.—Signals that, by the aid of electrical appliances between two given points or two stations, are made to appear

upon a dial, to indicate "train on" or "train off." The object is to prevent two trains being upon one "block section," travelling in the one direction at the same time.

BLOCK (ABSOLUTE).—Where absolutely no two trains or engines are allowed upon a "block section" at the one time.

BLOCK (PERMISSIVE).—Under some circumstances where there is a pressure of traffic, two trains are allowed on the one block section at the same time, going in the same direction. In such cases the second train, before passing into the section, is stopped at the block signal box, and the engine driver is told that another train is in the section in front, and he is verbally cautioned to proceed cautiously. Often this exception of sending on the second train is confined to goods trains following passenger trains.

BOGIE OR TROLLEY.—A bogie consists of two pairs of wheels and axles upon which a wooden platform is placed. Often the platform is made movable, so as to be lifted off the wheels. It is used by the men who repair the permanent way to travel about the line. If a train overtakes a bogie, the men can lift off the platform or body of the bogie, and afterwards lift off the two pairs of wheels and so leave the line clear.

BOGIE, CARRIAGES OR ENGINES.—The bodies of carriages instead of being supported directly upon the axles and springs, are at each end supported on the platform of the bogies by the aid of what are termed cup and ball sockets. The front portion of some engines are supported upon bogies in like manner. This form of construction is common all over America. Greater play is given to the vehicles for rocking, and hence they travel with safety over lines and round curves where the permanent way is inferior.

BOILER WAGGONS AND TROLLIES.—Specially constructed long railway waggons used for the conveyance of long steam boilers. There is, so to speak, a well in the centre of the trolley, and the boiler is loaded into this well and rests in it only a few inches above the ground, and between the wheels, which are situated at the two ends of the trolley. Some are constructed same height as ordinary waggons and provided with six wheels.

BRAKE VAN.—A vehicle in which a brake is fixed, and in which the guard of a train rides. (See Brake Power, Guard, and Brakesman.)

BRAKE (HAND).—An appliance fixed to guards' vans and to waggons, whereby blocks of wood or iron are, through the means of a screw or lever, brought to bear by pressure upon the wheels, to check the speed of trains or waggons during shunting operations, or to bring them to a stand at stations or sidings.

BRAKE (POWER).—The brake blocks are made to operate upon the tyres of the wheels, by a system of levers actuated by a power other than that of the hand. *Steam* is sometimes applied both to passenger and goods engines.

Compressed Air.—This is compressed on the engine and supplied by means of pipes carried continuously through the train

to reservoirs under the vehicles, whence it is caused to act upon the piston of a cylinder and connecting levers, as occasion demands. Example, the Westinghouse Brake.

Atmospheric Pressure.—A vacuum is created in the continuous piping running the whole length of a train; and as the pipes are connected with certain diaphragms (like the bellows of an accordion), the pressure of the atmosphere, acting externally, closes up the folds of the cylinders and moves the levers attached thereto, which in their turn press upon the brake blocks. Example, Smith's Vacuum Brake. *Electricity* is also employed, and, doubtless, will be increasingly employed when the appliances suitable thereto have been perfected.

Automatic Brake.—This term is applicable when the power brakes are so constructed as to secure the automatic application of the brakes on each separate vehicle or parts of a train, in the event of a train becoming divided in two or more parts. This prevents the rear part of a detached train running into the first portion, or the last portion running back, as the brake applies itself to the last as well as the first portion of the separated vehicles.

BRAKESMAN.—A term applied to goods guards. The term guard seems formerly to have been confined to the men in charge of passenger trains, who, no doubt, derived their name of office from the guards of the old stage coaches. Brakesman in America, however, is a term strictly correct with the man's duty, because there each carriage and each waggon carries its own brake. There are one, two or three brakesmen travelling on each train besides the guard, and their principal duty is to work the brakes. In the case of covered goods waggons on goods trains, the brakesmen, in America, run over the roofs, from waggon to waggon, to put on the brake of each waggon. The brakes are fixed so as to be worked from the roofs of the waggons.

BREAK-DOWN OR ACCIDENT VAN.—A carriage fitted up with screw-jacks, tools and all appliances required to put engines and vehicles on the rails, and clear the main lines in cases of accident. Some accident vans are accompanied by a second van, with sleeping bunks and cooking facilities for the accommodation of the men forming the accident gang. The van is usually kept at headquarters and taken to the scene of an accident at a moment's notice, and the appointed men, like men of a fire brigade, are collected in a twinkling.

BRANCH LINE.—A railway line connecting with the main line at a junction.

BUFFER—PLUNGER.—The movable part of a buffer in connection with springs which receive the blow.

BUFFER STOPS OR BLOCKS.—Wooden or iron appliances level with the buffers of vehicles fixed across the rails, usually at the end of sidings, to prevent vehicles leaving the rails.

BUFFERS.—Contrivances at the ends of all carriages and waggons to reduce the concussion when the vehicles are shunted one against

the other, or are moved in line upon a train. There are buffers with springs, and buffers upon goods and mineral waggons without springs.

CALLER-OFF.—A superior class of goods porter who "calls off" to his checker the description of, and names and addresses of packages of goods, as they are being loaded or unloaded.

CAN HOOKS.—See under loading in goods index.

CAPSTANS—(**HYDRAULIC**).—Capstans permanently fixed in the ground in goods sheds and station yards, and used instead of horses to shunt waggons. By pressing a plunger with the foot a valve is opened which admits water under pressure to the cylinders when the capstan revolves with velocity, and by the aid of a long rope attached at one end to the waggons and the other end coiled round the capstan, the waggons are drawn along the rails or turned upon the turntables.

CARRIAGE LANDING.—A platform or bank at stations used for loading and unloading carriages. Also termed a *carriage dock*. In the South of England the term used is *carriage shoots*.

CARRIAGE SHOOTS—**CARRIAGE LANDING**—**CARRIAGE DOCKS.**—See also carriage loading, general passenger index.

CARRIAGE TRUCK.—A vehicle specially constructed for the conveyance of private carriages. *Covered carriage trucks.*—A covered vehicle used for the same purpose.

CARTAGE ALLOWANCE.—A drawback allowed to the consignee or sender when they actually cart the goods to or from a railway station, and the rate charged is a "carted" rate, that includes the cartage service to or from consignee's or sender's premises.

CARTAGE DELIVERY.—Term to signify the delivery of the goods by cart to a consignee's premises at the receiving end of the journey, a service included when the rate charged is a "carted" rate, and the consignee's premises are within the cartage delivery boundary of the town. When the rate is "station to station," and consignee requests delivery to be made by the carrier, a special charge is made for the service.

CASH DOCKET.—A memorandum form accompanying the cash, showing particulars of amounts remitted.

CASH REMITTANCE.—Daily remittance of the cash receipts of the previous day to the head cashier or town bank.

CASH SUMMARY.—Daily or monthly return, showing the heads of traffic for which the cash has been remitted.

CATCH SIDING.—See safety siding.

CATTLE TICKET.—The way bill or invoice that accompanies cattle. It is usually a detached ticket torn from a counterpart in a book, the block portion remaining as a record at the forwarding station.

CHAIRS.—Small castings bolted to the sleepers by iron or wooden spikes in which the rails forming the permanent way rest, and are held in position by wooden blocks, termed keys. The chairs are secured to the sleepers by spikes, treenails or bolts.

CHECKER.—A half porter and half clerk kind of employee, directing several porters and acting in the capacity of a loading clerk, checking goods from consignment or loading notes, as they are loaded into waggons.

CLAM HOOKS.—Studded and serrated iron hooks upon slings for loading and unloading heavy wooden cases, boxes, &c.

CLAIMS VOUCHERS.—Credit notes issued by goods managers or passenger superintendents to station agents when claims for damage or loss are to be, or have been, paid out of the station receipts.

CLASSIFICATION OF GOODS.—A comprehensive list of articles of merchandise arranged in alphabetical order under several classes and comprising all kinds of goods traffic carried upon railways. The English classification encompasses all merchandise under mineral class A, mineral class B, special, first, second, third, fourth and fifth class. The Irish classification encompasses all merchandise under first, second, third, fourth, fifth and sixth class. The fifth and sixth classes in the two classifications are the highest in rate of charge.

CLASSIFICATION (PASSENGER).—See under Booking Office in Passenger Index.

CLEARING HOUSE (LONDON).—A huge audit office, incorporated by Act of Parliament (13 and 14 Vic., cap. 33, 25th June, 1850), and governed by a committee formed of delegates from the directors of the various railway companies, who become parties to the clearing system. The principal work of this office is to check, adjust and allocate, usually according to mileage, the receipts upon through traffic when two or more companies are interested. It is purely voluntary for railway companies to become parties to the Clearing House, and to use the facilities it affords. In the early railway days when the through booking system commenced, the managers met at special conferences and divided through traffic for their respective companies. Mr. Kenneth Morrison, about 1842, started a private office as an independent accountant in Drummond Street, London, with a staff of four clerks, and undertook to divide the receipts upon through traffic for railway companies. His business largely increased, and ultimately his venture developed into the present Clearing House, of which he became the first secretary, and continued in that office until his death in 1861.

CLEARING HOUSE (DUBLIN).—This is a counterpart of the London house, and was incorporated by the 23 Vic., cap. 29, 15th May, 1860. It deals with Irish traffic and also cross channel traffic between England and Ireland.

CLOAK ROOM.—See Left Luggage Office.

COACHING TRAFFIC.—Traffic carried per passenger trains, such as passengers, parcels, meat, fish, perishables, &c.

COMMON CARRIER.—A carrier who, holding himself out to the public as a general carrier, must, under the common law, carry for all persons alike within the scope of his profession—see page 67.

COMPOSITE CARRIAGE.—A railway passenger carriage in which there are two different class compartments. *Tri-composite.*—A carriage in which there are compartments of three classes.

COMPOUND (LOCOMOTIVE ENGINE).—An engine with two or more cylinders of different diameters—instead of two of the same diameter as in the ordinary engines—the steam being first used in the small high pressure cylinders and then used a second time in a large or low pressure cylinder or cylinders, so as to allow the steam to expand as much as possible before it escapes into the chimney, the object being to obtain a greater economy in consumption of fuel.

Example.—Webb's Patent Three Cylinder Compound Engine, which does away with coupling rods, while at the same time obtaining a greater weight for adhesion than would be possible on only one pair of driving wheels, without rapid destruction of the road. The driving wheels not being coupled there is less grinding action in passing round curves, and it is not even necessary that one pair should be of the same diameter as the other.

CONNECTING ROD (ENGINE).—A steel or iron rod connecting the piston rod and crank axle by which motion is transmitted to the wheels.

CONSIGNEE.—The term used to designate a person who is to receive the goods at the receiving or arrival end of the journey. The person to whom the goods are consigned.

CONSIGNMENT NOTE.—Also termed *shipping note*, *freight note*, and *declaration note*. It is a note that should always be made out by the senders of goods and handed to the carrier, at the same time as the goods are handed for conveyance. It is the document that forms the legal basis of the contract of carriage, and should accurately describe the goods, their destination, and give the names and addresses of the sender and consignee, &c. (See also Owner's Risk Note.)

CONSIGNOR.—A general term to indicate a sender of goods at the forwarding or departure end of the journey. The liability of confusing this term with that of consignee is leading to its disuse on railways, but with carriers on the sea and lawyers it is still in vogue.

COTTER (ENGINE).—A form of wedge used for tightening up the "big" and "little" ends of connecting rods.

COUPLING ROD (ENGINE).—A parallel rod having a bearing at each end by which locomotive wheels are coupled together.

COUPLING STICK.—See Newcastle hook.

COUPLINGS (FOR GOODS WAGGONS).—Two or more links of chain with hooks, used to connect waggons together to form a train.

COUPLINGS (SCREW FOR PASSENGER CARRIAGES).—Two links of iron with a right and left hand-screw between—a lever is attached to the centre of the screw, and when the links are fastened to the drawbars of two carriages, by turning the lever the links are drawn closer and the connection between the two carriages is

- tightened, whereby the oscillation of the carriages and other vehicles on a train is diminished.
- CRIPPLED.**—The term is applied to vehicles that have suffered damage or that, from wear and tear, are unfit to travel and require repairs. *Cripples.*
- CROSSING.**—The point where one pair of rails intersect or cross over another pair of rails. (See also Through Crossing.)
- CROSS-OVER ROAD.**—A line of rails with a pair of points at either end, to enable trains and vehicles being shunted from one main line to another main line, or from one siding to another, or from a main line into a siding.
- CUT OFF.**—Common term among guards and shunters when disconnecting or uncoupling waggons at any particular part of a train.
- CYLINDER (ENGINE).**—A hollow casting in which the steam gives motion to the piston.
- DAMPER.**—A cover or door placed at the front and back of the ash pan of the fire box of a locomotive engine, which can be opened or closed to admit or exclude air.
- DATING PRESS.**—See under Booking Office, Passenger Index.
- DEAD END SIDING.**—A siding with no outlet at one end and which is usually provided with a "buffer stop." (See also under Safety Siding).
- DEAD ENGINE.**—An engine not under steam.
- DEBENTURE STOCK.**—This stock is issued under the authority of Parliament, either in lieu of borrowing on mortgages or bonds, or in exchange for existing mortgages or bonds of a company; the interest upon it forms a first charge upon the gross earnings of the company after deduction of the working expenses and rents, and is cumulative until paid in full.
- DECLARATION NOTE.**—See Consignment Note.
- DELIVERY BOOK.**—The term is common to books used in a delivery office or by a carter, in which signatures are taken from consignees upon the delivery of the goods. (See also Delivery Sheets.)
- DELIVERY OFFICE.**—An office at a station in which all the writing work connected with inwards traffic is carried on.
- DELIVERY SHEET.**—A loose sheet containing entries of goods, in use with carters to make delivery of goods to consignees, and upon which consignees give signatures for the goods. (See Delivery Book.)
- DEMURRAGE.**—Relates on railways to a particular charge made upon rolling stock and sheets detained at a station under load beyond a certain number of hours or days. When a vehicle belonging to one company passes on to the railway of another company, it is due, under certain rules, to be returned to the junction in a specified time. If that time is exceeded the company detaining the vehicle has to pay a demurrage charge to the owning company according to the scale agreed upon between the

- companies parties to the through booking. (First class carriages ten shillings per day—other coaching vehicles six shillings per day—goods waggons three shillings per day).
- DEPOSIT FOR CARRIAGE.**—An amount taken on deposit, when from absence of invoice or weight the exact amount of carriage cannot at the moment be ascertained. *Assumed charge. Estimated charge.*
- DETONATORS.**—See Fog Signals.
- DIAGONAL.**—A piece of the framing of a carriage or waggon running from the headstock to the transome.
- DIAMOND CROSSING.**—See Through Crossing.
- DISC (GROUND).**—A low signal fixed on a turning centre, used to indicate that points are open or closed. Used at the entrance to a siding.
- DISTANT SIGNAL.**—A tall post of timber or iron lattice work erected like a mast, upon which lamps carrying red, green and white signal lights for night use, and semaphore arms for day use, are displayed, and by the aid of levers and wires, are turned on and made visible to approaching engine drivers, or turned off and obscured, as may be required. The height of the post and its distance from the spot at which the levers are worked depends very much upon the configuration of the country. The object is, that the engine drivers may see the signal lights sufficiently far away to stop or slacken the speed of trains, when such is necessary to avoid accidents. Up and down distant signals are fixed at suitable distances on each side of stations, junctions and at particular sidings. The arms of distant signals are usually notched at the end. The lights shown at junctions are only green and red.
- DIVIDEND.**—The available balance of a company (after deducting from the gross earnings the working expenses and rents) distributed among its proprietors in proportion to their holding of capital, in stock or shares, of the company.
- DIVISIBLE RATES.**—Rates per ton that are exactly divisible by twenty, so that the rate per cwt. may be an even sum, and thus simplify the calculation of tons, cwts., qrs. and lbs., at a fixed amount per ton. The increases are graduated at the rate of tenpence per ton or a half-penny per cwt.
- DOG-HOOKS.**—Sling-hooks with pointed ends attached to the chain of a crane, so that in lifting balks of timber the sharp iron points of the dog-hooks will penetrate into the timber for lifting purposes.
- DRAWBAR—DRAWBAR-HOOK.**—The drawbar-hook is fixed in the centre of the end of each vehicle, and forms one end of the drawbar; the other end is securely fixed under and to the frame of the vehicle. It is by the drawbar-hooks that vehicles are coupled together to form trains.
- DRIVER (ENGINE).**—The man in charge of an engine, responsible for and controlling its movement.
- DUMMY CARRIAGE.**—An unoccupied vehicle or compartment placed next to the engine tender upon a passenger train. (See page 424).

DUNNAGE.—Pieces of wood or other substances placed in waggons, canal boats, or upon the ground, as a bed upon which to stack or pile goods, to protect them from damp or rain-water.

EJECTOR (ENGINE).—An appliance used for creating a vacuum by means of a jet of steam.

ENGINE WATER TROUGH.—A narrow trough constructed between the rails at certain parts of a railway to hold water, which is taken up for steam purposes into the tender of an engine, while running at a great speed. A pipe is dropped into the trough and the water is projected up into the tender by suction, incidental to the momentum.

EXCESS (FARES).—An extra charge incurred by passengers travelling beyond the station to which their ticket is available, or by riding in a carriage of a superior class to that marked upon their ticket, or by riding in a carriage without having first paid for a ticket.

EXCESS LUGGAGE.—A surplus weight of luggage carried by a passenger beyond the weight the railway company, by Act of Parliament, are required to carry free inclusive in the passenger's fare.

FACING POINTS.—Points facing a train in the direction in which it is running and by which it may be turned on to another line of rails. The bugbear of railway companies, and a mine of wealth is in store for the man who can invent a safer substitute. *Duplex Detector.*—A modern improvement upon the locking bar and interlocking arrangement of facing points, whereby any failure in changing the position of the points by the signalman in his distant cabin is at once discovered. This provides against the breakage of the rod connecting the lever in the signal box with the switch, also the clogging of the switch by a stone or other impediment.

FANG SPIKE.—A large nail which, upon being driven into a sleeper, splits up longitudinally, so that it becomes difficult to extract or to cause it to release its hold. Used to secure rails to sleepers when chairs are not used, as for example with the Vignoles rail. A fang bolt is a screw bolt.

FEED-PIPE (ENGINE).—A pipe for conveying the water from the tank in the engine-tender to the injector for supplying the boiler.

FILE.—Applies to a bundle or file of letters and to the act of filing letters or putting them away in order.

FIRE-BOX (ENGINE).—The place where, by the aid of fuel, the heat is generated which raises the steam from the water in the boiler.

FIREMAN.—The assistant to the driver of a locomotive engine who works the brake on the engine and keeps the fire box supplied with fuel. Sometimes called a *Stoker*.

FISH PLATE.—An iron or steel plate about 18 by 8 inches. Two of these plates are placed on the sides of two rails at the point where they join to form a continuous line of railway and are fastened by bolts and nuts. A modern improvement of great

value without which it would have been hardly possible to run fast trains.

FLAG (HAND SIGNAL).—A small hand flag mounted on a short stick, and of white, green or red colour, used by pointsmen and others to control the movements of trains and engines.

FLAG DOCKET.—A docket given by a booking clerk to a guard, to warn him there are passengers to set down at a station where the train is not timed to stop.

FLAG STATION.—A station where a train is not timed to stop, and where the train only stops when a red flag is exhibited. (See Signal Stations).

FLOATING CASH OR CAPITAL.—A sum of money varying from one pound to twenty pounds, or in some cases even more, kept in hand for change and to meet incidental payments at stations.

FLYING SHUNT.—Is where one or more vehicles are shunted without being coupled to the engine engaged in pushing them. Thus the vehicles are often caused to run along the rails with uncertain velocity, difficult to control. Flying shunting saves much time, because the engine gives the vehicle a push and thus moves a less distance. The risk occurs in those cases where the push given by the engine is in excess of what may be necessary for the distance the vehicle has to run.

FOG SIGNALS.—Round metal cases with two pliable metal clips and containing a detonating substance. The disc is attached by the clips to the rail, and when the wheel of a vehicle passes over it, it explodes and a loud report is made. Used as a danger signal to stop and check the movement of trains in foggy weather, at night, and in cases of accidents when the line is blocked.

FOG GONGS (ELECTRIC).—Gongs attached to signal posts, and during foggy weather kept continually ringing, to prevent engine drivers unknowingly running past a danger signal.

FOGMEN.—Signalmen placed along a line at suitable distances at the approach to stations and sidings during foggy weather to supplement the ordinary signals that are obscured. These fogmen repeat, by a fog signal, the ordinary signals. Fogmen use detonator signals, and also hand signals.

FOOT-BOARD (CARRIAGE).—A board fixed along the outside of a carriage, about midway between the ground and the floor of the carriage. Useful to step upon to get in or out of a carriage where there may be no platform available.

FOOT-PLATE (ENGINE).—The iron platform upon which the engine driver and fireman stand.

FOOT WARMERS.—Metal cases usually containing hot water placed in carriages for passengers to put their feet upon to obtain warmth. The London and North-Western Company have introduced foot warmers containing some chemical substance, and by shaking this substance in the foot warmer the heat is regenerated from time to time, while the warmers do not require refilling for many weeks.

FOREIGN (TRAFFIC).—To the employees of railway "A" all other railways in respect to traffic are "foreign." Hence traffic passing to or from railway "A" on to or from other railways is spoken of as "foreign" traffic.

FOREMAN.—A man in charge of porters or shunters, controlling a section of the inside or outside work. *Foreman Shunter.*—*Grain Foreman.*—*Yard Foreman.*—*Timber Foreman.*

FREIGHT NOTE.—See Consignment Note.

FUSEE SIGNAL.—These are now out of use with the large railway companies, owing to the block system. The fusee signal was fixed upon a spiked stick and was ignited by being jerked violently downwards. It gave a strong red glare lasting some fifteen or twenty minutes. It was used in "break-downs" and sometimes when a slow train at night time was making slow progress and a following fast train was nearly due on the same line, the guard would throw out a fusee signal as a caution, and to check the speed of the following train.

GANG.—A number of men working together under one foreman or checker. Timber gang, Iron gang, &c.

GANGER.—The foreman of a *gang* of workmen put in charge of several miles of railway, to make repairs and keep the line free from obstructions. These men are generally termed *platelayers*, and in Scotland *surfacemen*. In America they are termed *track foremen*, and over the track foreman are *supervisors*, and over these are *road masters*, and again over these, engineers. In some English districts the ganger is spoken of by his men as a "gaffer," an old English term for master, as the feminine "gammer" is for mistress. The term "boss" is also used.

GAUGE.—Applied to the particular width of two parallel lines of rails which together form a railway. The English broad gauge where it now remains is 7 feet, and the standard gauge is 4 feet 8½ inches.

Calvert's excellent little *Mechanics Almanack* for 1885, gives the width of gauges as follows:—

	ft.	in.		ft.	in.
Great Britain (standard gauge,	-	4 8½	United States, prevailing gauges,	-	4 8½
Festiniog Railway,	-	1 11½		-	4 9
Talylyn	-	2 6		-	6 0
Ireland, standard gauge,	-	5 3		-	5 6
Europe, prevailing gauge,	-	4 8½	"	-	5 0
Russia, standard gauge,	-	5 0		-	3 0
Norway, -	-	4 8½		-	5 6
	-	3 6	Chili, -	-	4 8½
Spain, standard gauge,	-	5 6		-	4 2
Antwerp and Ghent,	-	2 3		-	3 6
Japan, -	-	3 6	Queensland, -	-	3 6½
India, prevailing gauge,	-	5 6	New South Wales, -	-	4 6
State Railway (1 metre),	-	3 2½	Brazil, -	-	5 3
Arconum and O. Railway,	-	3 6		-	5 8
Canada, -	-	4 8½	South Australia, -	-	3 6
	-	3 6	Victoria, -	-	4 8

GAUGE GLASS (ENGINE).—A small glass tube connected with the boiler, for showing the height of water therein.

- GAUGE (LOADING).**—An erection to measure the height and width of loads on waggons, to keep the loads within the dimensions of the bridges that accidents may be avoided.
- GOODS.**—A short term for merchandise. A prefix applied to men fulfilling offices connected with the merchandise department as *goods agent, goods clerk, &c.* A term to indicate a department of the railway service distinct from the passenger department. The term has now pretty well superseded that of "merchandise."
- GOODS ENGINE.**—An engine having generally six wheels coupled, the wheels being of small diameter suitable for taking heavy loads at a slow speed.
- GRADIENT.**—The degree of ascent or descent of any part of a railway, also the part itself—an incline.
- GRADIENT POST.**—A post bearing figures indicating the steepness of the gradient, as a guide to engine drivers and guards in regulating the speed of the trains at that particular part of the railway.
- GREASE BOX.**—A portable box for carrying grease for axle boxes of vehicles. (See Greasing.)
- GROUND POINTS.**—Points that are not worked by levers from a raised box.
- GUARD.**—It is probable this term originated in the old coaching days when the guard of the coach protected the passengers and carried a blunderbuss or a brace of pistols to defend them from highwaymen. It now applies to the man in charge of a passenger train who, within the company's rules, directs the engine driver as to the movement of the train. He rides in a vehicle supplied with a brake to check the speed of the train. He receives and delivers at the stations, as the train goes along, the passengers' luggage, the small parcels, and service letters. He is held accountable for the train keeping time, but when he is within station limits he is subject to the control of the station master. The term in America is *conductor*.
- GUARD RAIL.**—A rail laid parallel to another rail, generally alongside the inner rail round sharp curves, and constantly at crossings, from one line of rails to another. It is used as a precaution to lessen the chance of the wheels of a vehicle or train leaving the rails upon which it is travelling.
- GUARD TRUCK OR RUNNER.**—When timber, girders or other long articles are loaded on a waggon and they project beyond the end of the waggon, an empty waggon is placed next on the train to prevent accidents. This empty waggon is termed a guard waggon or runner.
- GUARDS' JOURNAL.**—Passenger and goods guards are required to keep on a loose printed form of journal a record of all matters that relate to each journey of their train. The journal shows (1), time of arrival and departure of the train at each station; (2), vehicles attached or detached upon the journey; (3), delays at stations and the cause, &c. In fact, a guards' journal and a ship's log are very like one to the other as a record of the journey.

GUARDS TRANSHIP BILL.—A way bill given to the goods guard of a train of all small packages put into his van or into a special tranship waggon that are to be left at roadside stations *en route*.

GUARDS' (GOODS) WAGGON ROAD BILL.—On some lines in addition to a goods guard keeping a journal, he keeps on a separate form a record of the numbers of the waggons attached and detached to or from his train during the journey.

HAND HOOKS.—See goods index under Loading.

HALF YEARLY ACCOUNTS.—The final results of a half year's profits and losses in respect to the business of a railway, compiled for submission to the shareholders at their half yearly meeting. A copy of same is sent to the Board of Trade.

HEAD LIGHTS OR BOARDS (ENGINE).—All engines carry a white head light at night, but on many railways engines also carry distinguishing marks placed in front of an engine to denote to signalmen and others from whence the train has come, or where it is going to. Lights are used by night and specially painted discs by day.

HEAD STALL.—An appliance in a railway horse box for securing the heads of horses during transit.

HEAD STOCK.—The end transverse piece of a carriage or waggon upon which the buffers are fixed.

HOLLOW SHEETING.—Spreading a tarpaulin sheet over goods upon a waggon, and leaving hollows in the sheet in which rain-water can form pools, whence it may penetrate through the sheet and damage the goods.

"HOOK-ON" OR "HOOK-UP."—To couple or fasten together two vehicles.

HOPPER WAGGON.—A waggon constructed with falling doors in the bottom which can be opened to suddenly discharge the whole contents of the waggon. Used for such traffic as coke, coal, lime, ore, &c. A waggon is pushed upon a line of rails erected over a shoot, and the coal falling from the waggon is conveyed by the shoot into the hold of a ship or canal boat.

HORN PLATES OR AXLE GUARDS.—The solebars are held in position by these plates, and slide up and down within them.

HORSE BOX.—A vehicle specially made to carry horses upon passenger trains. Each horse box is constructed to carry three horses.

HORSE HOOK.—An iron eye bolted on to the waggon side to hook a chain to, when shunting the vehicle by horse power.

HOT BOX.—When the oil or grease in an axle box becomes heated to boiling point, and possibly takes fire, it is termed a "hot box." This often occurs with new vehicles when the axles do not work freely. Hot boxes also arise from vehicles not being properly supplied with oil or grease, or when too heavily laden.

INACCURACY SHEET.—Sheets issued from the clearing houses and audit offices, to point out errors or discrepancies in station abstracts, that same may be adjusted. *Discrepancy sheet.*

INJECTOR (ENGINE).—An appliance for forcing the feed water into the boiler.

INTERLOCKING.—A system of slots and projections which, working in combination with sliding bars, prevent the movement of the levers of points and signals, other than the particular ones intended to be free. The interlocking is worked from a signalman's cabin and the object is to avoid conflicting signals.

INVOICE (GOODS).—The way bill or document that accompanies the goods, containing particulars of same, and recording in respect to each consignment the carriage "paid" at the forwarding station, and the carriage "to pay" at the receiving station.

INVOICE OFFICE.—An office at a station appropriated for the work of invoicing and the conduct of the business relating to the despatch of outwards goods.

JOURNAL (AXLE).—That portion of the axle of a vehicle which rests within the axle box and is lubricated with oil or grease to reduce friction and accelerate locomotion.

KEYS.—A wedge, usually of wood, that, driven into the side of an iron chair in which the iron rail rests, wedges the rail into a fixed position that the true gauge of the line may be kept.

LAMP (CARRIAGE).—Used in the roofs of passenger carriages.

LAMP (ENGINE HEAD).—Lamps of different colour fixed to the front of engines by which signalmen and others can tell the kind of train that is approaching. In America the engine head light is an enormous lamp, visible a mile or two away, and which actually illuminates the permanent way some distance in advance, that the engine driver may see where he is going and trespassers may be specially warned.

LAMP (SIDE).—Lamps for showing red lights at the two sides of guards' vans at the end of a train, as signals to an approaching train on the same line of rails, and white lights towards the engine driver to enable him looking back to see that no portion of his train has broken away.

LAMPS (TAIL).—Large red, or sometimes green, lamps fixed at the centre of the last vehicle on a train, as a warning signal to a train following on the same line of rails, and to signalmen and others, that no portion of the train has accidentally become detached. Where there is one or two relief main lines, a green tail lamp is used for trains running on the relief lines. Upon "slip" coaches a green and a red tail lamp is often used.

LAMP (TRAIN FOLLOWING).—A second or extra red tail lamp by night and a tail board by day attached to the last vehicle on a train, is a signal to warn signalmen and others that a special train, not mentioned on the time table, is following.

LAMPS (HAND SIGNAL).—Lamps with glasses of three colours—white, green, and red—for signalling trains, or controlling shunting operations during night time and in foggy weather.

- LAY BYE.**—An outlying siding.
- LEAD HOOKS.**—Particular kinds of slings used to lift rolls of lead in loading or unloading.
- LEDGER.**—A book used at stations as a record of money due by each trader for carriage. (See under Accounts.)
- LEDGER ACCOUNTS.**—A monthly credit account given by a carrier to a trader for carriage upon goods, &c.
- LEFT LUGGAGE OFFICE.**—An office established at most important stations as a place of temporary deposit for cloaks, rugs and packages of luggage. The usual fee is twopence per package. (See Passenger Index under Left Luggage.)
- LENGTH (PERMANENT WAY).**—A certain distance along the permanent way apportioned to a ganger and his men to look after and keep in repair.
- LEVEL CROSSING.**—A passage for men, cattle and vehicles across a railway, either between two fields or where a public or private road crosses the railway upon the level, the line being protected by gates on each side of the railway.
- LEVER (POINTS).**—An iron rod or handle used to move points or signals.
- LIGHT ENGINE.**—An engine running without having a train or vehicles attached. *Single engine.*
- LINE CLEAR.**—A phrase signifying that the line is clear for a train to pass forward. Sometimes unwisely used to signify "train off."
- LIVE ENGINE.**—An engine in steam.
- LIVE STOCK TICKET.**—See Cattle Ticket.
- LOADER.**—The porter who stows goods in a waggon.
- LOADING PADS.**—A thin pad about the size of a grain sack, used as wads in loading Manchester shipping bales to prevent chaffing during transit.
- LOCAL (TRAFFIC).**—The converse of Foreign Traffic, which see.
- LOCKING BAR.**—A long bar fixed to the side of the rails, near facing points. This bar has to be raised before the points can be moved and cannot be changed when any vehicle is standing on it, thus preventing the points being allowed to stand partially open.
- LONGITUDINAL SLEEPER.**—A sleeper upon which the rail is fixed, laid length-ways, as distinguished from cross sleepers, laid cross-ways.
- LOOP SIDINGS.**—Independent sidings having access by points from both ends, principally used for shunting trains at certain places where trains have to pass each other.
- LORRIES.**—See Bogies.
- LOST PROPERTY OFFICE.**—A central office usually at the station where the headquarters of each railway is situated. All luggage and articles found in carriages or on stations without owners, are sent to this office for safety and identification.
- MAIN LINE.**—The chief line of a railway from which the branches extend. It also applies generally to indicate the lines upon which the trains run, contra-distinguished from sidings used for vehicles to stand upon.

- MILEAGE.**—The term relates to a *mileage* division on traffic, also to the *mileage* charge receivable by the owners for the use of vehicles that have conveyed traffic upon a railway other than the railway to which the vehicle belongs. *Mileage Posts.*—Posts placed along a railway every quarter of a mile to mark the distance.
- NAVY.**—A term given originally to the labourers employed in the construction of canals and railways. Said to be derived from navigator.
- NEWCASTLE HOOK.**—A hook fixed upon a stick, used for coupling or uncoupling goods waggons from the side, and thus obviating the shunter “ducking” under and going between the waggons. First brought into use at Newcastle-upon-Tyne.
- NIPPERS.**—Lads who, in the north of England, accompany carters and carry the delivery sheet, take care of the consignment notes, and watch that no person steals any goods off the cart while the carter’s back is turned.
- NIPPERS.**—Iron hooks with chains attached for loading and unloading heavy blocks of stone.
- NIPPERS (TICKET).**—Iron hand nippers used by ticket collectors to cut out small pieces of passengers’ tickets.
- NUMBERMAN.**—The man or lad who keeps the record of the numbers of the vehicles passing junctions, and in and out of stations. *Number Taker.*—*Number Catcher.*
- OCCUPATION CROSSING.**—A level crossing between two fields confined to the use of the occupier or owner of the fields.
- OIL SHEETS.**—Waterproof sheets of paper used in damping, and preparing tissue copying paper to receive copies of letters.
- OUTSTANDINGS (LEDGER).**—Amounts unpaid and in dispute, due by traders having monthly accounts.
- OUTSTANDINGS (PORTERS).**—Amounts unpaid upon goods remaining undelivered, and unpaid upon goods delivered without payment of the carriage, together with other sundry amounts.
- OVERCHARGE SHEETS.**—Sheets which, when duly attested, become credit vouchers for amounts created in excess of the proper charge in respect to weights, rates or calculations.
- OWNER’S RISK NOTE.**—A note embodying a special agreement between a sender of goods and a carrier, where a carrier, by undertaking to carry the goods at a rate lower than the ordinary rate, is relieved by the sender of the insurance responsibility fixed by the “common law” of the land upon all common carriers.
- PACKING.**—Term used to designate the operation of forcing ballast (gravel) under and about sleepers, to form the substratum of the permanent way, so as to keep the two rails of a line in a suitable horizontal position one with the other. The rail on the outside of a curve requires to be “packed” higher than the rail on the

- inside. *Packing*.—Pieces of wood used in getting vehicles on the line after an accident.
- "PAID" AMOUNTS.**—Amounts of carriage paid by the senders at the forwarding station upon forwarded goods.
- "PAID ON" AMOUNTS.**—Amounts paid out, or due to be paid out, at the forwarding station upon goods for cartage, or for conveyance by a previous carrier. This is a term that is difficult for the public to understand, and it would be much better to alter the term to "*paid out*." In America the term is "*back charges*."
- "PAID ON" BOOK.**—A form of cash book specially devoted to entries of "*paid on*" amounts paid, or to be paid out upon goods.
- "PAID ON" VOUCHERS.**—A printed form of voucher for taking receipts for "*paid ons*" paid out to a carter or previous carrier.
- PASSENGER CLASSIFICATION BOOK.**—A book in which the issues of passenger tickets is recorded for the week and month.
- PASSENGER ENGINE.**—An engine having not more than four wheels coupled, and sometimes with single driving wheels of large diameter suitable for running trains at high speeds.
- PASSENGER TRAIN BOOK.**—A record of the tickets sold to passengers for each train.
- PERMANENT WAY.**—The road bed with the rails, sleepers and fastenings forming the railway.
- PETTY CASH.**—See Floating Capital.
- PILOT ENGINE.**—An engine used as a "*conductor*" of both up and down trains upon a single line, when the second line of rails is blocked or unworkable. A pilotman wearing a red cap or red jacket is usually placed in charge of the engine and, for fear of an accident, no train is allowed to pass over the single line either way, unless accompanied by the pilot engine and pilotman. The use of the pilot engine in this manner probably originated the system of working single lines by the aid of the "*staff*." The author would be glad of any information as to the first single line worked under the "*staff*" system.
- PILOTMAN.**—See Pilot Engine.
- PINCH BAR.**—A long wooden bar, shod with iron, used as a lever, and placed behind and under the wheel of a vehicle to move it along the rails from one part of a siding to another part.
- PLATELAYERS.**—See under Ganger.
- POINTS.**—Movable rails with graduated ends or points fixed at particular places and moved by a lever, whereby trains and vehicles can be turned from one line of rails to another line of rails. Points are sometimes termed switches.
- POINTSMAN.**—A general term for men who hold the points in a station yard during shunting operations. Sometimes the work of holding the points is combined with that of railway policeman. With the new system of concentrating and interlocking of points and signals, the pointsman's office disappears, and the work he did formerly is now done by a signalman from an elevated signal box, from whence he can have an uninterrupted view of the station yard.

"PORTERS" AMOUNTS.—Amounts of carriage the carters collect on delivery of the goods. Probably the term originated with the old carriers who sent out porters as messengers to deliver small parcels by hand.

PORTERS' SETTLING BOOK.—A cash book used for entering amounts of carriage on goods collected by carters or paid by traders at stations.

"POSTED" AMOUNTS.—Amounts posted to the monthly accounts of traders to whom the company give a month's credit.

PREFERENCE STOCK.—A portion of the capital of a company to which is attached a priority of dividend up to a fixed amount, over the ordinary stock of a company. The dividends are in nearly all cases contingent upon the profits of each year, and any arrears of dividend in one year are not recoverable from the profits of a subsequent year, but in some cases the dividends are cumulative in the same way as with debenture stock.

QUARTER LIGHTS.—The small windows in the compartments of passenger carriages.

RAKE OF WAGGONS.—A string of waggons.

RAMP.—The slopes at the ends of passenger and other platforms where the platform, by a declivity, reaches the level of the permanent way.

RAMPS.—An iron contrivance in the form of an inclined plane, useful when vehicles get off the line, as by the aid of the ramps the vehicles are quickly and easily guided upon the rails again. (See under Yard.)

RECEIVER OR SCALESMAN.—The man who accepts goods for conveyance from the sender, and by signing for same makes the contract of carriage between the sender and the company.

RECHARGE (INVOICE).—A transfer of an amount from one station to the debit of another station. The amount, with an explanation, is entered upon an ordinary invoice form, in the "paid on" column of invoice, and extended into the "to pay" column. This recharge invoice passes through the abstract books at both stations. The forwarding station gets credit for the amount as a "paid on," while the receiving station becomes debited with the amount, because it is entered in the "to pay" column. (See under Accounts.)

REFUGE SIDING.—An outlying siding off the main line, often between two stations, where a slow train may shunt to allow a quick following train to pass forward. In America called a switch-off siding.

REGISTRAR.—The clerk who registers in a railway company's books the transfer of shares from one person to another person. A junior clerk who registers correspondence or inwards invoices.

REGULATOR (ENGINE).—A valve for controlling the supply of steam to the cylinders.

RELAYING.—Repairing permanent way and putting in new rails.

ROLLING STOCK.—A general term applied collectively to all kinds of vehicles running upon a railway.

ROPE (TAIL).—A rope with a hook at either end used for shunting waggons into a siding by engine power, when from the position of the siding it is not possible for the engine to push or otherwise draw the vehicles to the place at which they are wanted; also used for tailing waggons past to allow an engine to get in front of them.

ROSTER (GUARDS).—A list of the guards' names with the trains they are appointed to work and their hours of attendance.

SAFETY SIDING.—Under this heading it is intended to group several terms that may be practically resolved into the word "safety."

It is common to speak of a *catch siding* and *catch points*, of a *trap siding* and *trap points*, of a *catch runaway siding* and of *throw-off points*.

In all cases the points are only ordinary points, but the way they are "set" and the purpose of their application varies, and hence probably the variation in the names.

It is generally recognised that a "safety siding" has a "dead end" with buffer stops, and this also applies to both a *catch siding*, a *trap siding*, and a *runaway catch siding*.

The use of a safety siding is (1), to prevent vehicles running on to the main line and thereby causing an accident, and (2), to intercept vehicles that have irregularly got into motion on a main line and divert them into a siding to avoid an accident. The first kind of safety siding is often laid parallel to a main line, with a cross-over road connecting the main line and the siding, and the points of the siding are normally "set" for the "dead end," so that if vehicles are blown by the wind or, owing to an incline, move along from the one end of the siding, they cannot pass on to the main line but run past the points along the siding to the buffer stops at the "dead end."

The second kind of safety siding is where there is no connecting cross-over road, and only one pair of points which are in direct connection with the main line and are facing points for vehicles moving in the wrong direction, so that vehicles becoming detached from a train on an incline and running back are intercepted by these points and diverted into the siding, rather than being allowed to run further along the main line and possibly come into collision with an approaching train.

In either case the vehicles are *caught* or *trapped* and mischief avoided. There are also safety sidings which, in addition to their *catch* feature, are sufficiently long to enable goods trains to continue shunting and marshalling in and out of connecting sidings without fouling the main line.

Throw off Points.—Where there is not room to put down a safety siding it is often necessary to substitute throw-off points.

The vehicle then, instead of passing along to buffer-stops at a dead end, simply drops off the rails at the points on to the

ballast, which is preferable to its running on to the main line and causing an accident.

These points are usually worked in connection with a ground disc or other fixed signal. Sometimes what is called the third rail arrangement is adopted. The two outermost rails are then carried through as "stock" rails, and the innermost rail terminates in a flange which can be "set" so as to make the road for the main line or the throw-off rail as required.

SCISSORS CROSSING.—Formed by two cross-over lines intersecting each other obliquely, affording a double connection between two lines of railway. The form of this crossing resembles an open pair of scissors, and hence the term. Useful for an engine to get round a train quickly, also useful where there is an object in keeping the shunting at a station within narrow limits, and where also the passenger platform is unusually long.

SAMSON.—A "samson" is now almost obsolete since the improvement in screw couplings. Its use was to release a too tight coupling between two carriages that could not be got over either drawbar hook in the ordinary way. A "samson" had a hook at either end, and by working a ratchet handle on the principle of a screw-jack, arranged longitudinally instead of vertically, the buffers of the two carriages were drawn closer together and the tight coupling released.

SCALES MAN.—See under Receiver.

SCOTCH BLOCKS.—Blocks of wood fixed to rotate upon a pivot so that the blocks can be moved to obstruct the rail at one end of a siding. Useful on inclines to prevent vehicles moving out of a siding on to the main line by the pressure of wind or from their own momentum.

SCOTCHES.—Small pieces of wood used for blocking or "chocking" casks and goods liable to move in waggons, so that they may remain immovable during transit and shunting. (See also under Spraggs).

SCREW JACK.—A portable vertical lifting appliance worked by the aid of a screw and a lever for raising heavy weights. Principally used for lifting engines and vehicles when off the line back on to the rails.

SEASON TICKET.—A periodical ticket issued for a fixed time, the holder of which, by a single payment of a lump sum, acquires the right to travel as often as he likes between certain specified stations.

SEMAPHORE.—A movable arm working in a signal post and used for signalling drivers of trains during daylight, in a similar manner as a signal lamp is used at night time. When the semaphore arm is raised at right angles from the post it signifies "danger," while if it is raised only half way it signals "caution," and when within the upright sheath of the post and not visible, it is an indication of "all right."

SHACKLE.—A link of chain used to couple waggons together. *The Shackle—Shackler.*

SHARE.—The capital of a company divided into certain parts, each one representing a fixed proportion of the whole capital, and bearing a distinctive number, and which can only be transferred in its entirety.

SHEETS.—Tarpaulins used to cover waggons and protect the goods from rain.

SHEET TRESTLES OR SUPPORTERS.—Half circular iron or wooden frames fixed on each side of and spanning a goods waggon upon which the sheet or tarpaulin is spread when, from insufficient goods in a waggon, the sheet cannot be elevated to form a "shoot" to throw off the rain during transit.

SHIPPER.—Is usually applied to a man who sits in a wooden box office, situated upon a goods platform, and invoices goods. He is practically a clerk, though not generally ranked as such; but he does far more important and harder work than many clerks who wear better clothes and receive higher pay. He is sometimes spoken of as a "brown paper clerk." The terms "shipper" and "invoice clerk" are almost interchangeable, for in some districts an invoice clerk does shipping work and *vice versa*, and a "caller off" also sometimes does shipper's work. It is probable the term "shipper" originated with the old canal carriers, and that the "shipper" was a kind of super-cargo, who took account of the goods as they were loaded into the canal boats.

SHIPPING NOTE.—See under Consignment Note.

SHOOT (GRAIN).—An inclined plane generally made of wood and used for sliding sacks of grain, &c., from a higher to a lower floor, or into a road vehicle for cartage.

SHOOT FOR THE SHEET.—See under Hollow Sheeting.

SHUNTER.—One who shunts or superintends the removal of vehicles from one line of rails to another line.

SHUNTING.—The moving of vehicles from one line of rails to another, and especially during the formation of trains; also when one train has to pass another train *en route*. A correspondent in the *Railway and Tramway Express* (1884), gives the following account of the origin of the word:—

"This word was not one of common use until the introduction of railways. Its adoption shows the practical nature of the fathers of the railway system. No word that we are aware of could better express the sense or use to which it is applied. It is a contraction of 'shun it.' *Shun*, to avoid, to keep clear of; in this sense its application may be well understood. *Shunt*, to push, to move suddenly: 'For *shunting* your late partner upon me.'—*Hughes*. It is, however, used in a very early manuscript. 'Morte Arthure,' meaning to delay, to put off: 'Schape us an answere and *shunte* you no longer.' Also in a publication (1550) it occurs in the following, meaning to move away from:—

'Then I drew me down into a dale, whereat the dumb deer
Did shiver for a shower; but I *shunted* from a freyke,
For I would no wight in this world wist who I were
But little John Nobody, that dare not once speake.'

The word is one devoted almost entirely to railway use. Its comprehensiveness and force may be gathered from the foregoing illustrations; it certainly is a good word in the right place."

SICK WAGGONS.—Term on Indian railways for crippled or damaged waggons.

SIDE CHAINS.—Additional coupling chains placed at the ends of each vehicle on either side of the draw-bar hook. They may be termed "safety" chains, as in the event of the drawbar coupling of two vehicles giving way, the side chains may prevent the train separating. Opinions vary as to the advantages of side chains. The side chains between two vehicles must be fastened loosely, in loop form, on account of the curves on the line; and if the drawbar couplings give way, the slack of the loop occasions such a jerk on the train that frequently the side chains are torn out and fail to accomplish the object of their design. If from carelessness in fastening the side chains between two vehicles they are fastened too tight, then from the absence of sufficient play when the train is passing round a curve of the line, one of the vehicles may be thrown off the line and thus occasion an accident. They are generally applied to carriages but not to waggons.

SIDINGS.—Lines of rails for vehicles to stand upon, such lines not being "main" or running roads.

SIGNALS (STATION AND HAND).—There are several kinds, the principal are (1) Home Signals, the high post at the station upon which are fixed semaphore arms for day, and red, green and white lamps for night; (2) Distant Signals, the same kind of post placed several hundred yards each side of a station and at outlying sidings (see under Distant Signal); (3) red, green and white hand flags; (4) hand lamps showing either red, green or white lights; (5) Fog Detonating Signals (see under Fog); (6) signals by movement of the arms, the *two* arms held up above the head signifies "danger," one arm held up above the head indicates "caution," one arm held out at a right angle from the body indicates "all right;" (7) Starting Signals often at the end of a station platform; (8) Siding Signals, discs by day and purple, green and white lights at night.

SIGNAL OR FLAG STATIONS.—So called in relation to particular trains that only stop at such stations (which are usually road-side stations) when specially signalled to stop to take up passengers.

SINGLE LINE.—A railway consisting of a single pair of rails, necessitating "up" and "down" trains passing each other at stations, or at loop sidings. Some single lines have short lengths of double lines at intervals.

SIX FOOT.—The width or centre space between two lines of rails.

SLEEPERS.—Pieces of wood varying in length according to gauge, to which the iron or steel rails are fastened. *Cross sleepers—longitudinal sleepers—square sleepers—half-round sleepers—pot sleepers—creosoted sleepers.* About 1,820 cross sleepers are required for a mile of single line. We should like to know the origin of the word.

SLIP COACH OR DROP COACH.—A passenger carriage placed at the end of a train for a particular station where the train does not stop, but at which the carriage is detached from the train while

in motion. A composite carriage having a guard's brake compartment is generally used for this purpose, so as to have the means within itself of being stopped.

SLIPPERS.—Boys whose duty is to unhook the chains used in horse shunting from the waggons or carriages.

SLOTTED SIGNALS.—Two signals (semaphore and lights) on the same post interlocked by a slotted arrangement. These signals are worked by two men from opposite sides; neither signal can be lowered singly, but the two may be lowered concurrently by the mutual action of the two signalmen. One signal in certain cases might be worked from two sides.

SOLE BAR.—Principal longitudinal part of a carriage or waggon frame to which the horn plates or axle guards are fixed.

SPECIAL CONTRACT NOTE.—See under Owner's Risk Note.

SPRAGS.—Stout pieces of wood that are jammed between the spokes of the wheel of a vehicle, which causes it to "skid," and checks the motion by preventing the wheel rotating. *Scotchies.*—Pieces of wood placed under the wheel on the rail for the same purpose.

STAFF.—A term applied to the employees of a railway, when referring to them in the aggregate.

STAFF (TRAIN).—A piece of wood or metal used on single lines, which given by a station master or officer on duty to an engine driver confers the "right of road" for an engine or train to pass between certain stations or sections of line. The object is to prevent more than one engine or one train being in motion or otherwise upon a particular length of line at the one time, and one staff can only be in the possession of one engine driver at the one time. Access should only be obtained to the train tickets by the means of the staff, acting as a key to open the box in which the tickets are deposited.

STAFF (TRAIN) TICKET.—An ordinary printed ticket used as a substitute for the train staff, giving an engine or train on a single line the "right of road" between certain stations. Suppose number one train passes from A to B and before any return train is available to pass back from B to A with the staff, another train, number two, has to proceed from A to B. It then becomes necessary to send on number one train with a "staff ticket" and *retain* the staff at A to be used for the passage of number two train. Sometimes two or three trains may be passed forward by "staff ticket" in this manner, but ultimately either a train, an engine, or a messenger must convey the staff to enable trains being sent in the opposite direction.

STANDARD GAUGE.—See under Gauge.

STOCK.—Capital of a public company, usually the result of the consolidation of shares of fixed amounts and bearing distinctive numbers, but sometimes issued as stock; it can generally be transferred in any amount not containing the fraction of a pound; some companies, however, only permit its transfer in amounts divisible by five and others in amounts divisible by ten.

STOKER.—See Fireman.

STORAGE.—See under Wharfage.

STOWER.—See Loader.

STRAW RINGS.—Used in loading casks of oil, spirits, &c., in waggons. The casks are placed on the rings or wads to prevent rolling or displacement during the journey.

STRAW WADS.—Used as scotches to secure casks in railway waggons.

SURFACEMAN.—See under Ganger.

SWITCH.—See under Points.

TABLET.—A train tablet is a modern substitute for working single lines, being, in fact, a combination of the train staff and the block signal system. It is peculiar to an electrical system called "Tyer's Train Tablet System," first brought into use on the Callander and Oban Railway in Scotland. The tablet is a small metal disc, and is released from a locked receptacle by the concurrent action of the two signalmen at the two ends of a section, or between one station and another station. The tablet is carried on the train instead of a staff.

TAIL BOARDS.—See under Lamps.

TAIL LIGHTS.—See under Lamps.

TANK ENGINE.—An engine which has no tender, but carries its water and fuel in tanks attached to the main frame. There are passenger tank engines and goods tank engines.

TARPAULINS.—See Waggon Covers.

TENDER.—A carriage attached behind a locomotive engine, carrying fuel and water.

TENDER FIRST.—Term to denote when an engine is running end first. "It was coming tender first." Tank engines are seldom "turned," and necessarily at times travel end first, while other engines have to do so when there is no engine turntable at a terminal station, such as at the end of a branch line. The term *bunker first* is also used in the case of tank engines.

TERMINAL CHARGES.—Small amounts added to the mileage charge for services incidental to the work and accommodation in dealing with traffic at the stations where the journeys commence and terminate. When the construction of railways were first authorised by Parliament, they were intended to be used by carriers and the public, who were expected to run their own vehicles upon the rails. The carriers of that day did for a time actually use the railways in this manner, paying the companies the mileage rate, and adding thereto a further amount for terminal services and profit. As the railway companies gradually became carriers for the public on their own railways, they likewise added small amounts to the mileage rates for terminal charges.

THREE-THROW POINTS.—Treble sets of points being a junction for three lines of rails.

THROUGH CROSSING.—A short piece of line running diagonally or at right angles over two or more lines to transfer vehicles from one siding to another siding. *Diamond Crossing.*—Where one

through crossing intersects an intermediate or other line obliquely, so that the rails form a diamond figure.

THROW-OFF POINTS.—See also Safety Siding. Where there is not room to put down a safety siding it is often necessary to substitute throw-off points. The vehicle then, instead of passing along to buffer-stop at the dead-end, simply drops off the rails at the points on to the ballast, which is preferable to its running on to the main line and causing an accident. These points are usually worked in connection with a ground disc or other fixed signal.

TICKET TUBES.—Hopper receptacles fitted in cupboards for keeping passengers' tickets in booking offices.

'TO PAY' AMOUNT.—An amount entered on an invoice in the "to pay" column to be collected at the receiving station.

TRAILING POINTS.—Points that a vehicle passing over opens, and that automatically close or trail back into the normal position. A vehicle when passing over a cross-over road, the first points passed are facing points and the second points become trailing points. If the vehicle passed over in the contrary direction the terms applied to the movement of the points would be reversed.

TRAIN FOLLOWING BOARD.—See Lamp (Train following).

TRAIN BOOK.—See under Booking Office in Passenger Index.

TRANSFER CLERK.—See under Registrar.

TRANSIPS.—See goods index under Tranships.

TRANSOME.—A transverse piece of the frame of a carriage or waggon.

TRAP POINTS.—See under Safety Siding.

TRAVELLING CRANE.—A crane fixed upon a railway waggon that can be taken from station to station or to places where accidents have occurred.

TRAVELLING SAFE OR CASH BOX.—A large, strong, square, iron safe provided at the top with a trap door or inlet. A bag containing cash can be placed upon the falling door and by pressing down the outer lid the bag falls down into the safe. On lifting the lid of the safe the same act brings up the falling door to its normal position ready for the next bag. Thus, without using violence, a bag once dropped into the safe cannot be taken out in an illegitimate manner. It is used for sending the cash daily from the stations to the head cashier. The safe is placed in the guard's van of the first morning train, and the station agents deposit therein their cash bags as the train stops at each station.

TRAVERSER (CARRIAGE).—A kind of small platform on wheels. A traverser moves upon two rails laid crossways, or at right angles, over several lines of railway at a station. A carriage is run on to the traverser, and the traverser with the carriage upon it is pushed or moved across to a particular line of railway, and pushed from the traverser down on to the line. Traversers are used in marshalling carriages to form trains and to transfer carriages to repairing shops and carriage sheds.

- TRAVERSER (LUGGAGE).**—A movable arrangement like a large heavy gangway, put from a quay wall on to the deck of a steamer. It is used to quickly transport luggage up an inclined plane by machine power. The traverser is usually thirty feet long, and twenty-seven inches wide. A stout gutta percha endless band works upon two rollers placed at either end of the traverser, and there are bearing rollers provided intermediately. A donkey engine on the steamer is put into use to make one of the end rollers revolve, which sets in motion the endless band. The packages of luggage are then placed upon the revolving band and quickly put on shore. Wooden sides are provided to prevent the packages falling off the endless band.
- TRAVERSING CRANE.**—An over-head crane traversing on cross-beams, sometimes used for lifting carriages from one line of rails to another line, or for lifting heavy weights, such as blocks of stone and pieces of timber.
- TUBES (ENGINE).**—These act as flues passing through the boiler, for the hot gases and products of combustion to pass through on their way to the chimney, heating in their passage the water by which they are surrounded.
- TURNABLES.**—Circular tables set in lines of rails revolving upon a pivot, and used to transfer vehicles from one siding to another siding, and to turn engines so as to avoid running them tender first.
- UNDERCHARGE.**—An amount short of the ordinary charge, arising from a clerical error in charging carriage on an invoice or parcels way bill.
- VAN GOODS.**—Small packages carried in guards' vans as tranships, to be put out at small stations.
- VAN (GUARDS).**—A vehicle in which the guard rides, and which is supplied with a brake to check the motion of the train. The van is also used for parcels, passengers' luggage, and service letters. In the early days of railways there were no vans, at least upon goods trains, and the guard rode in the end waggon exposed to the weather.
- VAN PARCELS.**—Parcels carried by slow passenger trains at half the ordinary parcels rates or something between the parcels and the goods rates. Principally confined to parcels over 10 lbs. in weight.
- VANS (FISH).**—Covered vehicles supplied with ventilators, suitably constructed to run on passenger trains and carry fish and other perishable traffic. Special kinds of vans for cheese, gunpowder, dead meat, &c., are also in use.
- WAGGON COVERS.**—Waterproof tarpaulins used for covering goods upon waggons.
- WAGGON ROAD BILL.**—A document used by goods guards to enter the numbers of the waggons they take on their trains, to enable

them to know the particular waggons to put off at each station on the journey.

WATER TANK—COLUMN OR CRANE.—A water tap appliance erected usually at principal stations for supplying water to engine tenders for steam purposes.

WEATHER BOARD (ENGINE).—A screen fixed upon engines for protecting the drivers and firemen from the weather. When made with sides and roof it is called a "cab."

WHARFAGE.—Charge made for storage of goods upon wharfs or in sheds.

WOOL HOOKS.—Iron hooks on slings used for hoisting sheets of wool.

YARDSMAN.—Shunter in charge of the yard work at a station.



GOODS INDEX.

(See also Passenger Index.)

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PROPOSAL FOR A
RAILWAY COMMISSION
FOR
TECHNICAL EXAMINATIONS.

IN these modern times the callings of divines, doctors, and lawyers are accepted as "professions." This is because the organised training and examinations in University Colleges has dignified these callings and attracted some of the best men of the nation to these learned professions. The acceptance of things as we find them when born into the world leads us to recognise a College as a place where a young man attends, at considerable expense to his parents, to acquire knowledge, and in proof thereof, to obtain a degree or diploma after passing sundry and various examinations.

Now, immediately a young clerk enters the service of a railway company, he commences what may be termed a Railway College career. True he has no professors to fee, no lectures to attend, no coaches or grinders to pay. He learns his calling, and, at the same time, derives the advantage of being paid for the work he does. The weakness, however, of the Railway College, contrasted with the University College, is that the Railway Collegian obtains no diploma of efficiency, while the University Collegian, on passing his examinations, obtains a degree or diploma,* and thenceforth no one can question his attainments. To adopt a homely illustration, he gets a "brand." It is customary for Scotch herrings in barrels to be inspected, and the barrels

* We have preferred to use the term "Diploma," which the dictionary defines as "a letter or writing conferring some honour or privilege." The word in France and other countries is not confined to any one profession, but is applied generally to documents given when some honour has been conferred.

branded with the quality of the herrings; but, on the other hand, Irish herrings are not in like manner inspected and branded, and hence the Scotch herrings bring a better price in the market. Cork butter also, when branded as "Firsts," brings a higher price than any other butter, all the world over. If herrings and butter are "branded" to indicate their quality, that they may, in like manner as University men, be more highly valued, then why not railway officials and clerks.

The Traffic Department, the Permanent Way (Engineering), and the Locomotive (Mechanical Engineering) constitute distinct branches of a Railway College, and a college of really a practical kind, and not a place where theory alone is acquired from books. All, therefore, that is now wanted is a "brand" or "hall-mark," to be put upon individuals who are found to be excellent.

Small beginnings often precede important results, and as a commencement the writer proposes to deal only with that branch of the Railway College with which he is connected—namely, the Traffic Branch. Should success crown this effort, the other branches or departments of the service would follow as a consequence.

The scheme herein proposed is not new, as a very similar plan already exists in the design and working of the College of Preceptors, London, which is simply an examining body.

OBJECTS.

1. To appraise and brand the quality of the technical knowledge and efficiency that station agents, clerks, and others have acquired in the business of railway traffic working.

- (a) Agents at first-class stations, as to their fitness for higher positions.
- (b) Agents at minor stations, as to their fitness for first-class stations.
- (c) Clerks and others as to their fitness to take charge of stations.

2. To supplement and reduce to an organised system the present *viva voce* examinations, customarily held by "superintendents of the line" and "chief goods managers" before men are appointed to act as station agents.

3. To test, from time to time, the progressive advance of junior clerks and others as to the technical knowledge they have acquired of the various branches of railway business.

4. The examinations to be confined to the technical work incidental to the conduct of railway traffic, and in no way to affect or supersede the present preliminary examinations made by each company's officers into the secular education of young men seeking admittance into the railway service.

CONDITIONS.

1. The examinations to be permissive, and entirely at the free will of the members of the present staff.

2. The examinations to be limited to those persons who shall have been engaged in the conduct of railway traffic for a fixed number of years, as may be found convenient, but to commence, say for a period of five years.

FEEES FOR EXAMINATIONS.

1. A fee (not returnable) of 10s. to be paid by the candidate when registering for an examination and receiving his "Examination" card. A further fee of 10s. to 20s. to be paid by the Railway Company in whose employment the candidate is engaged, according to the expenses incurred for each examination. No candidate to be registered for examination unless he produces certificates to prove that he has been engaged in railway service for the stipulated number of years.

2. An additional fee of 10s. to be paid by the candidate for his diploma after he shall have successfully passed his examination.

PROCESS OF EXAMINATIONS.

The examinations to be held from time to time at central towns convenient for the employes of particular railway companies, so that, as far as may be found desirable, each examination may specially serve the employes of one company.

Persons who are eligible, wishing to submit themselves for examination, to fill up a suitable printed form and send

same to their manager; and the manager in his discretion, when a suitable number of candidates, say 25 to 50, are before him, to arrange with the Commissioners to hold an examination.

The examinations to be chiefly carried out by the aid of written answer-papers, upon which the answers to the examination questions must be written by the candidate. In special cases, however, written papers to be supplemented by *vivâ voce* examinations, as may be deemed necessary for some subjects, such as signals, &c.

The examiners (in number according to the amount of work) to be selected from general managers, goods managers, passenger superintendents of line, chiefs of audit, or other leading officials who may be willing to act as honorary examiners, and may be specialists in their own departments. It will be of importance to have a fair number of examiners, so as to subdivide and minimise the labour of examining the answer-papers and allotting the marks. The examiners in a section or subject will be required to compile a set of *new* questions for each examination, amounting, say, to from 15 to 20 questions, the answering of which by the candidates will necessarily involve an intimate knowledge of the details of a particular section of the business. Assuming the maximum number of marks to be given for one section or subject to be 500, and the questions to number 20, then 25 marks will be the maximum number to be given for each question. In accordance with the completeness and accuracy with which a question is answered in writing or *vivâ voce*, the examiner in his judgment will allot a certain number of marks up to 25 per question. A candidate to be successful must obtain a "pass" number of marks for each section or subject, and he must be successful in passing in a certain fixed number of obligatory sections or subjects. If he does not pass in the required number of sections necessary to obtain a diploma, then a record will be kept in his favour as to the subjects in which he succeeded, and, at the discretion of the Commissioners, he can present himself on a subsequent occasion for re-examination in the subjects in which he failed.

The candidates at the appointed time will be assembled in a room in charge of a Commissioner or other suitable person. The examination questions, printed on slips of paper, will be handed round to each candidate, and *only then known to him for the first time*. Each candidate will be known only by a number on his "Examination" ticket, and this number only, he will be allowed to write upon his

answer-papers. When the stipulated time allowed for a subject has elapsed, the answer-papers, placed in envelopes by the candidates, will be collected, and subsequently dispatched to the examiners. Single desks, to accommodate only one person, will be provided so as to separate the candidates, and prevent one copying from or assisting another.

An important feature is that the examiners and the candidates (except in the *vivâ voce* examinations) will not see each other or know each other. An examiner furthermore will not know the writer of an answer-paper which he may be examining, and the candidate will not know who may be the particular examiner who will have examined his answer-papers. Officials acting as examiners will have simply to read the answer-papers sent to them, and allot the marks. In fact they will be judges *in camera*, and unassociated with any further personal responsibility. There being different examiners for different sections, the marks for the several sections will have to be summarised, and thus the success or failure of a candidate would not depend on his work for any one particular examiner.

GOVERNMENT.

The Commission to consist of five general managers, acting as Commissioners. Each railway company desiring to be associated with the Commission to subscribe £100 per annum to meet the general expenses. It is anticipated that the fees fixed will cover the ordinary charges incidental to holding examinations, but where such may not be the case, the company or companies whose employes may be examined, to bear the extra cost, and each examination to be dealt with financially upon its own merits. The honorary or paid services of examiners to be open for consideration, and payment to depend upon funds being obtainable hereafter.

PRIZES.

Prizes of £5, £10, £20, or £50, to be subscribed by those companies who elect to offer such rewards to such of their *own employes* as pass the examinations successfully, and with honours. Funds to be collected to form an "Endowment Fund," to admit of the Commissioners offering annual prizes of money to the most successful candidates.

The advantage to be derived by railway companies adopting this system of examination for their employes may be summarised as follows :—

1. An increased active spirit of emulation would be permanently diffused through the staff.
2. Taking station experience as the unit of efficiency, a goal or fixed standard would be created, which being attainable purely by merit, would quicken men to study, so that they may become efficient “all-round men,” rather than as now—efficient “departmental men.”
3. The examinations by evolving increased competition in respect to qualifications would cause the “rank and file” of the staff to attain a higher standard of efficiency.
4. The sifting process of the examinations would bring to the surface a higher trained set of young men to graduate for leading positions.
5. The staff would be weeded of many men of mediocre capacity, who, finding themselves unable to pass the examinations, would quit the service, and make way for younger men with better capacities.

The advantages to the staff may be summarised as follows :—

1. A defined road to promotion would be opened, and only those men possessing real merit could travel along that road.
2. The weary years of waiting for promotion now endured by many capable men would be shortened.

A SELECTION OF SUBJECTS UPON WHICH EXAMINATION QUESTION - PAPERS MAY BE ADVISEDLY FRAMED.

SIGNALS.

Fixed Signals—Block Signals—Signals in relation to Shunting Operations—Signals (exceptional) based upon the particular rules and regulations in force with the candidate's own line.

PASSENGER DEPARTMENT.

Platform Work and Handling Luggage on the arrival and departure of passengers—Checking Tickets—Booking Passengers—Accounts and Returns—Yard Work and Forming Trains—Routes and Geography of Towns and Junctions—Parcel Handling and Accounts—Audit Office Regulations affecting Passenger Work—Clearing House Regulations affecting Passenger Work—Special matters relating to the business of the particular railway upon which the candidate is employed—A Carrier's Legal Liability in relation to Passengers and Parcels, with cases stated—Accidents, Clearing the Line, and Treatment of Persons Injured. (Open for further subjects.)

GOODS DEPARTMENT.

(Outwards.)

The legal features of Accepting Goods and making the Contract of Carriage—The actual acceptance and the process of Weighing—The process of Sorting the Goods and the clubbing of them together for each destination station—The process of Checking and Loading the Goods into the Railway Waggon, and the Sheeting of the Waggon—Invoicing and Charging Goods—Classification and acquaintance with the class under which each kind of goods is classified—Routes and Geography of Towns and Junctions—Cartage of Goods and acceptance from Company's Carting Agent—Cattle Traffic Outwards.

GOODS DEPARTMENT.

(Inwards.)

Unloading and Checking Goods out of Waggon and the various plans for doing same—Making Delivery of Goods and Grain off Platform—Delivery Office Work—Cartage Delivery—Cattle Traffic Inwards.

YARD WORK.

Appliances and Accommodation of Space to admit of Goods and Waggon being dealt with—Marshalling and Shunting Waggon into Trains—Number Taking—Working Waggon in and out of Warehouse Sheds.

GOODS DEPARTMENT.

(Accounts.)

SEE SPECIMEN QUESTIONS.

MISCELLANEOUS.

Canvassing for Traffic—Stoppage of Goods in Transit—Correspondence Office Work, and the ordinary cases that

arise—Shorthand Writing—A Carrier's Legal Liability for Goods in his care, and cases stated—Explaining Technical Railway Terms—Precis Writing—Quality of Handwriting.

TELEGRAPH.

The Operating or Working of the Telegraph—The Scientific part of the Telegraph (optional subject).

SPECIMEN QUESTION PAPER.

SIGNALS.

Examine diagram of Junction Station (herewith supplied) and fill in (1) the positions where signals should be placed; (2) the signals and points that should interlock to provide for safety (in like manner as is done in filling in the positions of towns and villages on an outline map).

1. Explain and define the objects and mode of working home and distant semaphore signals.

2. Describe the positions that can be exhibited by the semaphore arm, and the meaning attached to each position.

3. On which side of the signal post is the semaphore arm shown, and when there are several arms on the one side to which lines do they apply?

4. How do the lights shown at night correspond with the positions of the semaphore arms during the day?

5. When do the lights on the signal post supersede the use of the semaphore arms?

6. Describe the precautions necessary during fogs, in relation to the exhibition and use of signals.

7. When fixed signals are unworkable or broken, what other method of signalling has to be substituted?

8. When a signal wire breaks what position does the semaphore arm assume?

9. What is the normal position of a semaphore arm where the interlocking system prevails?

10. Describe the effect upon the semaphore arm when the signal wires contract or expand by reason of a variation of temperature.

11. Explain the reasons that render necessary the use of detonating signals outside distant semaphore posts, and the positions in which they should be placed according to company's rules.

12. Describe the various forms of signalling by the arms of the body, by flags, and by hand lamps, both by day and by night.

13. Where a starting signal is in use and the line beyond blocked, how is a train engine to advance up to the signal, and how is the home signal to be worked? When there is no starting signal how then is the advance to be guarded?

14. When two trains are approaching a junction on converging lines at the same time, how are the signals to be worked that one train may take precedence of the other train?

15. Where block signalling is not in operation what intervals of time are to be observed in the passing of trains, and what precautions observed to prevent trains following each other too closely?

16. Describe the duties of a signalman in respect to the care of points, signals, and other appliances.

17. If one line of a double line of rails becomes obstructed, and trains have to be worked in both directions over one line, describe how the working should be carried on.

18. Describe the system of working a single line of railway by train staff and tickets.

BLOCK SIGNALS.

19. If a signalman had reason to think that the whole of a train had not passed his cabin, what steps should he take to protect the section of the line affected?

20. Give a descriptive outline of the appliances used for signalling trains by block telegraphs.

21. What is the object of "block" telegraphing?

22. What is the process of signalling the "departure" or "approach" at one signal box, and the "arrival" at the next signal box?

23. In the event of any obstruction occurring on the line at or near a signal box, describe the method of signalling "danger" to the signal boxes on each side.

24. Describe the principal "occasional" signals, and the circumstances under which they are to be used.

SPECIMEN QUESTION PAPER.

STATION ACCOUNTS.

1. Enumerate the principal debits that have to appear on the "debit" side of a goods balance sheet.

2. Enumerate the principal credits that have to appear on the "credit" side of a goods balance sheet.
3. Describe a "no debit," and give illustrations of cases that arise.
4. Explain a "re-charge" and its use, and give illustrative cases that render its use necessary.
5. Enumerate the principal errors arising in the abstracting that affect the debit and credit of the station, and give the mode of clearing or dealing with same.
6. Formulate a "paid-on" sectional balance, and enumerate the principal entries of debit and credit that usually appear in such a balance at a station.
7. Give a definition of "current" and "arrears" cash.
8. Describe what circumstances give rise to the substitution of a through for a local invoice, and give examples.
9. When an undercharge amount is uninvoiced at the end of the month, define its bearings as affecting the general balance sheet.
10. When inwards abstract summary of "to pay" amount is overtalled, explain how it is adjusted for the general balance sheet.
11. Enumerate cases of audit office "debits" and "credits" that arise.
12. Describe what is understood by a "no debit" amount being reclaimed from final debit.
13. Explain what is understood by a "no debit" amount being brought finally to account.
14. Describe the difference between an overcharge and an undercharge, state how dealt with in the general balance sheet, and give cases where such amounts arise.
15. Explain the different systems by which railway companies charge their carting agent with the carriage of goods collected and delivered.
16. Amounts debited to carting agent and collected by the company, how do they affect the general balance sheet, and state how dealt with?
17. What is the effect of entering traffic on wrong abstract sheets or in giving incorrect routes?
18. Enumerate amounts that come under the category of outstandings, and describe how same should be cleared.
19. How should a "paid on" not paid be dealt with in a balance sheet?

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